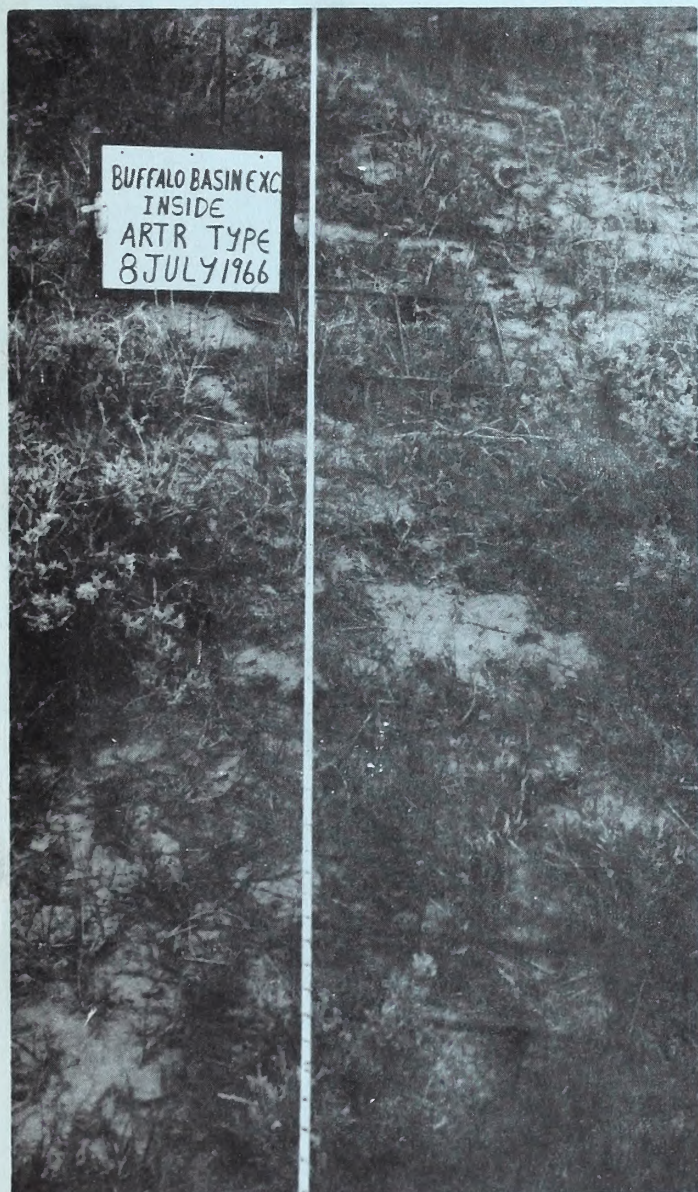




Re

Cooperative Research Report
to the Bureau of Land Management

1965-1966 RESULTS



EXCLOSURE STUDIES WITH TRANSECTS
OF PERMANENT PLOTS

ARID LAND ECOLOGY RESEARCH

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Submitted by Wyoming Agricultural Experiment Station

August 1967

EXCLOSURE STUDY WITH TRANSECTS OF PERMANENT PLOTS¹

by

Herbert G. Fisser²Introduction

The study of vegetation changes on sites with fenced exclosures, by use of transects of permanent plots was initiated in 1965 as a Wyoming Agricultural Experiment Station Cooperative program with the Bureau of Land Management. The study site exclosures were provided by the B.L.M. and are located in the Worland and Casper districts. A general description of the work program and listing of the study areas was incorporated in the cooperative research program agreement entitled "Arid Land Ecology".

PROCEDURES

Transects of permanent plots were located both inside and outside the exclosures. Wherever possible these paired transects were located in all vegetation types encompassed by the exclosures. In some instances cultural treatments such as sagebrush control were conducted and permanent plot transects were located to evaluate the treated and nontreated sites. A complete list of exclosures studied under the permanent plot transect program is presented in Table 1. and includes a listing of transects by treatments, sites and vegetation type characteristics.

For a measure of precipitation, gauges were installed at most of the exclosures. The gauges were cans 14" in height with a diameter (approximately 3") such that one inch of precipitation was equal to 100 milliliters of water. To record the precipitation the water in the gauge was poured into a 100 ml. graduated cylinder and converted directly to inches of precipitation. The gauges were read four times a year--April 15, June 30, August 31 and October 15. Moisture loss due to evaporation was eliminated by addition of 20 ml. of light oil each time a gauge was read. During the fall and winter periods anti-freeze (either 100 or 200 ml. depending on location) was added to the gauges.

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Transect establishment

The following detailed description of the establishment of the permanent transects of 20 plots, each 1' x 1' square, is provided to enable others to understand the procedures for continued collection of vegetation data with a minimum amount of error caused by worker variation.

The first step in establishing the transects requires the selection of a homogeneous area with little variation in site characteristics and general vegetation composition. The area selected should preferably be at least 100 ft. in length. If this distance is not feasible, smaller sites may be selected and the transect line bent to fit the area (See map of Grass Creek Divide Exclosure).

A permanent rod (3/8" x 2' concrete rebar) is driven into the ground so that about 6" protrudes above the soil surface. This is designated the "0" end of the transect. A 100' tape is attached to the rod and laid out to form the transect line. Another permanent rod is driven into the ground at a distance of 6"-12" beyond the 100' point of the tape.

Large spikes (16d box) are then pushed into the ground at the two corners of each of the 20 plot locations along the tape. The spikes are located at the following distances along the tape - 4' and 5', 9' and 10', 14' and 15', --, 94' and 95', 99' and 100'. With the tape in place these are easily relocatable for accurate placement of the square foot from during subsequent years of data collection.

Data collection

For collection of vegetation data the plot frame is laid down on the right hand side of the tape (facing from the "0" end to the "100" end) with two corners of the frame directly over the permanent spikes. On sites with tall shrubs slender rods should be used as guides to insure placement of the plot corners directly above the location spikes.

Quantitative values for each species present within a plot frame are based on growth form. Aerial shrub, half-shrub, and tree values are given in terms of canopy cover - the percent value of the plot surface which is intercepted by a vertical projection from the plant crown. These percentage values of shrub and tree canopy are classed as overstory and do not preclude the presence of understory species beneath the aerial portions of these plants.

Percentage area values of herbaceous understory species are presented as basal cover, a combination of the concepts of basal area and foliage cover. The concept of basal cover has been developed to recognize that the presence of one plant precludes the presence of another in the area in which it enters the soil surface as well as an area surrounding it. Basal cover is thus, often greater than the basal area of a plant but smaller than the foliage cover because an area of foliage cover, especially in the arid and semi-arid regions of the western United States, does not

preclude the presence of other plants within its boundary. The application of the basal cover concept therefore results in quantitative values of abundance more closely related to plant influence within a community than either basal area or foliage cover. Basal cover values represent thus, the area in which no other plants are able to establish and survive. This area includes both the area occupied by the base at the ground surface as well as the area beyond in which no others are able to grow because of competition for space, moisture and root and aerial volume.

Understory species with a prostrate growth form are evaluated in terms of the percentage plot area occupied by them to the exclusion of other plants including both root area and stem and leaf area which limits the presence of other plants. In some instances other plants are able to grow through the cover and openings in the mat of a prostrate species. This value is deducted from the total area value of the prostrate plant. In other instances bare ground and openings covered with litter may be present within the perimeter of prostrate individuals. If these are large and obviously able to support plant growth, they are deducted from the total area value. Small openings which are unable to support plant growth due to the presence and influence of the prostrate species are included in the total area value.

Upright herbaceous species which usually grow by single stem are evaluated on the basis of numbers of individuals and diameter of stems. The total cross section of the stems of all plants within the plot boundary is determined as a percentage of the total plot area. Little allowance is given to area not actually occupied by the stems at the ground surface, especially with respect to annual forbs. In dense stands of perennial species in which the nearness of the stems to one another precludes the presence of other species by competition for moisture, root space and aerial foliage space, the percentage area value is increased to allow for the competitive presence of the dense stand which tends to limit the possibility of the presence of other plants. The increased percentage area value is seldom greater than ten percent of the actual basal area of the stems at the soil surface.

Basal cover values of upright herbaceous species which grow in a typical bunch form are determined on the basis of the percentage area of a plot utilized by them to the exclusion of any other plants. Included in this concept are both basal area and the basal cover areas which preclude the presence of other plants because of spatial competition factors. Increased area values may often be as great as fifty percent of the basal area.

RESULTS

Summarized data from 1965 and 1966 are presented in alphabetical order by enclosure name on the latter pages of this report. Plant species are listed by four letter code symbols. The first two letters

(4)

are taken from the generic name and the third and fourth letters from the species name. In case of code duplication number digits are added immediately after the code letters. A list of all plants encountered in the permanent plot transect work program with common and scientific names with life form and longevity characteristics preceeds the exclosures data pages. No attempt has been made to analyze vegetation conditions or changes because of the treatments. Insufficient time has passed for significant responses.

Table 1. List of exclosures with transect description and plot of establishment of permanent plot transects.
(20 - 1' x 1' plots per transect).

<u>Code No.</u>	<u>Exclosure Name</u>	<u>County</u>	<u>Transect Description and Establishment Year</u>
0101	Arminto	Natrona	Inside native, Inside furrowed, Outside furrowed - 1965
1511	Big Bend	Hot Springs	Inside, Outside - 1966
0916	Big Flat	Big Horn	Inside, Outside - 1965
2011	Big Trails	Washakie	Inside "A", Outside "A" (est. '65); Inside "B", Outside "B" (est. '66)
----	Black Mt.	Big Horn	to be established in 1967
1101	Buffalo Basin	Park	Inside grass, Outside grass, Inside ARTR Outside ARTR - 1966
2012	Dead Indian	Washakie	Inside furrowed, Outside furrowed - 1965
0102	Donlin	Natrona	Inside, Outside - 1965
2013	East Ridge	Washakie	ARTR Inside, ARTR Outside, ATNO Inside, ATNO Outside - 1965
2014	Emgee	Washakie	Inside spray, Outside spray, Inside nonspray Outside nonspray - 1965
1512	Grass Creek Divide	Hot Springs	<u>All transects established in 1966</u> Type A - Meadow Grass - Inside, Outside Type B - Wet Erosion Site - Inside, Outside Type C - Sagebrush Grass - Inside spray, Outside spray (sprayed in 1962). Inside non-spray, Outside nonspray. Type D - Rocky Forb Grass - Inside, Outside Type E - Meadow Sedge Grass - Inside, Outside
0917	Horse Haven	Big Horn	Inside native, Outside native, Inside spreader, Outside spreader - 1965
----	Kane Seed	Big Horn	to be established in 1967
----	Lower Enos Creek	Hot Springs	to be established in 1967
0103	Mud Springs	Natrona	Inside furrowed, Outside furrowed, Inside native, Outside native - 1965

Table 1. (cont.)

0104	Owl Draw	Natrona	<u>All transects established in 1965</u> Transect #1 - Inside Deer Exc., ARNO type, East Exposure Transect #2 - Outside Deer Exc., ARNO type, East Exposure Transect #3 - Inside Deer Exc., JUOS-ARNO type, NE Exposure Transect #4 - Outside Deer Exc., JUOS-ARNO type NE Exposure Transect #5 - Inside Deer Exc., ARTR type, North Exposure Transect #6 - Inside Deer Exc., ARNO type, North Exposure Transect #7 - Outside Stock Exc., ARNO-JUOS type, North Exposure Transect #8 - Inside Stock Exc., ARNO type, North Exposure Transect #9 - Inside Stock Exc., ARNO-JUOS type, NW Exposure Transect #10 - Outside Stock Exc., ARTR type, NW Exposure
0105	Poison Spider	Natrona	Inside, Outside - 1965
1507	Rankin Basin	Hot Springs	Inside, Outside - 1965
2015	South Butte	Washakie	Inside spray, Outside spray - 1966
0106	Stinking Creek	Natrona	Inside spray, Inside nonspray, Outside nonspray - 1965
1508	Upper Enos Creek	Hot Springs	Inside Spray, Outside spray - 1965
1509	Upper Grass Creek	Hot Springs	Inside spray, Outside spray - 1965
1510	Upper Left Hand Creek	Hot Springs	Inside, Outside - 1965
2016	Worland Cattle Co.	Washakie	Inside, Outside - 1966

LIST OF PLANTS OCCURRING ON 1' x 1' PLOT TRANSECTS

Code	Genus - Species	Common	Life Form	Longevity
ACLA	<i>Achillea lanulosa</i>	Yarrow	Forb	Perennial
AGCR	<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	Perennial
AGEX	<i>Agrostis exarata</i>	Spike redtop	Grass	Perennial
ACGL	<i>Agoseris glauca</i>	Pale agoseris	Forb	Perennial
AGR	<i>Agropyron</i> spp.	Wheatgrass	Grass	Perennial
AGR 2	<i>Agrostis</i> spp.	Redtops	Grass	Perennial
AGSC	<i>Agrostis scabra</i>	Ticklegrass	Grass	Perennial
AGSM	<i>Agropyron smithii</i>	Western wheatgrass	Grass	Perennial
AGSP	<i>Agropyron spicatum</i>	Bluebunch wheatgrass	Grass	Perennial
ALTE	<i>Allium textile</i>	Textile onion	Forb	Perennial
ANDI	<i>Antennaria dimorpha</i>	Low pussytoe	Forb	Perennial
ANOC	<i>Androsace occidentalis</i>	Fairy candelabra	Forb	Annual
ANRO	<i>Antennaria rosea</i>	Rose pussytoes	Forb	Perennial
ARCO	<i>Arenaria congesta</i>	Ballhead sandwort	Forb	Perennial
ARCO2	<i>Arnica cordifolia</i>	Heartleaf arnica	Forb	Perennial
ARFR	<i>Artemisia frigida</i>	Fringed sagewort	Half-shrub	Perennial
ARFU	<i>Arnica fulgens</i>	Arnica	Forb	Perennial
ARHO	<i>Arenaria hookeri</i>	Hooker sandwort	Forb	Perennial
ARHO2	<i>Arabis holboellii</i>	Holboell rockcress	Forb	Perennial
ARLO	<i>Arnica longifolia</i>	Arnica	Forb	Perennial
ARNO	<i>Artemisia nova</i>	Black sagebrush	Shrub	Perennial
ARPE	<i>Artemisia pedatifida</i>	Brown sagebrush	Half-shrub	Perennial
ARSP	<i>Artemisia spinescens</i>	Bud sagebrush	Half-shrub	Perennial
ARTR	<i>Artemisia tridentata</i>	Big sagebrush	Shrub	Perennial
ARTR2	<i>Artemisia tripartita</i>	Threetip sagebrush	Shrub	Perennial
ASGR	<i>Astragalus grayi</i>	Gray's milkvetch	Forb	Perennial
ASMI	<i>Astragalus missouriensis</i>	Missouri milkvetch	Forb	Perennial
ASMI2	<i>Astragalus miser</i>	Timber milkvetch	Forb	Perennial
ASPU	<i>Astragalus purshii</i>	Pursh loco	Forb	Perennial
ASSP	<i>Astragalus spatulatus</i>	Tufted milkvetch	Forb	Perennial
ATAR	<i>Atriplex argentea</i>	Silverscale saltbush	Forb	Annual
ATCA	<i>Atriplex canescens</i>	Four wing saltbush	Shrub	Perennial
ATCO	<i>Atriplex confertifolia</i>	Shadscale	Shrub	Perennial
ATNU	<i>Atriplex nuttallii</i>	Nuttall saltbush	Half-shrub	Perennial
BASA	<i>Balsamorhiza sagittata</i>	Arrowleaf balsamroot	Forb	Perennial
BOGR	<i>Bouteloua gracilis</i>	Blue grama	Grass	Perennial
BRJA	<i>Bromus japonicus</i>	Japanese chess	Grass	Annual
BRTE	<i>Bromus tectorum</i>	Cheatgrass	Grass	Annual
CAAN	<i>Castilleja angustifolia</i>	Narrow-leaf Indian paintbrush	Forb	Perennial
CAEL	<i>Carex eleocharis</i>	Needleleaf sedge	Sedge	Perennial
CAFI	<i>Carex filifolia</i>	Threadleaf sedge	Sedge	Perennial
CAL	<i>Calochortus</i> spp.	Mariposa lily	Forb	Perennial
CAMI	<i>Camelina microcarpa</i>	Littlepod falseflax	Forb	Annual
CANU	<i>Calochortus nuttallii</i>	Sego lily	Forb	Perennial
CAR	<i>Carex</i> spp.	Sedge	Sedge	Perennial
CARO	<i>Campanula rotundifolia</i>	Bluebell	Forb	Perennial
CAS	<i>Castilleja</i> spp.	Paintbrush	Forb	Perennial
CEAR	<i>Cerastium arvense</i>	Field chickweed	Forb	Perennial
CHAL	<i>Chenopodium album</i>	Lamb's quarter	Forb	Annual
CHNA	<i>Chrysothamnus nauseosus</i>	Rubber rabbitbrush	Shrub	Perennial

(continued)

Code	Genus-Species	Common	Life Form	Longevity
CHVI	Chrysothamnus viscidiflorus	Green rabbitbrush	Shrub	Perennial
CIAR	Cirsium arvense	Canada thistle	Forb	Perennial
COM	Compositae		Forb	
COOR	Conringia orientalis	Haresear mustard	Forb	Annual
COPA	Commandra pallida	False toadflax	Forb	Perennial
CRAC	Crepis acuminatus	Tapertip hawksbeard	Forb	Perennial
CRE	Crepis spp.	Hawksbeard	Forb	
CRFL	Cryptantha flavoculata	Cryptantha	Forb	Perennial
DAN	Danthonia spp.	Oatgrasses	Grass	Perennial
DAUN	Danthonia unispicata	Onespike oatgrass	Grass	Perennial
DEPI	Descurainia pinnata	Pinnate tansymustard	Forb	Annual
DOD	Dodecatheon spp.	Shooting star	Forb	Perennial
ELJU	Elymus junceus	Russian wildrye	Grass	Perennial
ERCO	Erigeron compositus	Fernleaf fleabane	Forb	Perennial
ERI	Erigeron spp.	Fleabane	Forb	Perennial
ERPU	Erigeron pumilus	Fleabane	Forb	Perennial
EULA	Eruotia lanata	Winterfat	Half-shrub	Perennial
FEID	Festuca idahoensis	Idaho fescue	Grass	Perennial
FEOC	Festuca octoflora	Sixweek fescue	Grass	Annual
GILE	Gilia leptomeria	Gilia	Forb	Annual
GRSQ	Grindelia squarrosa	Curlcup gumweed	Forb	Biennial
GUSA	Gutierrezia sarothrae	Broom snakeweed	Half-shrub	Perennial
HAAC	Haplopappus acaulis	Stemless goldenweed	Forb	Perennial
HAGL	Halogeton glomeratus	Halogeton	Forb	Annual
HEKI	Hesperochloa kingii	King fescue	Grass	Perennial
HEPE	Helianthus petiolaris	Prairie sunflower	Forb	Annual
HYAC	Hymenoxys acaulis	Stemless hymenoxys	Forb	Perennial
IRMI	Iris missourinsis	Rocky Mountain iris	Forb	Perennial
JUOS	Juniperus osteosperma	Utah juniper	Tree	Perennial
JUSC	Juniperus scopulorum	Rocky Mountain red cedar	Shrub	Perennial
KOCR	Koeleria cristata	Junegrass	Grass	Perennial
KOSC	Kochia scoparia	Fireweed	Forb	Annual
LAP	Lappula spp.	Stick tight	Forb	Annual
LAPU	Lactuca pulchella	Blue lettuce	Forb	Perennial
LARE	Lappula redowskii	Stickseed	Forb	Annual
LATE	Lappula texana	Stickseed	Forb	Annual
LEAL	Lesquerella alpina	Alkaline bladderpod	Forb	Perennial
LEAR	Lesquerella arenosa	Bladderpod	Forb	Perennial
LEDE	Lepidium densiflorum	Prairie pepperweed	Forb	Annual
LEPU	Leptodactylon pungens	Granite gilia	Forb	Perennial
LERE	Lewisia rediviva	Bitterroot	Forb	Perennial
LES	Lesquerella spp.	Bladderpod	Forb	Perennial
LILE	Linum lewisii	Blue flax	Forb	Perennial
LOOR	Lomatium orientale	Eastern lomatium	Forb	Perennial
LUP	Lupinus spp.	Lupine	Forb	Annual
LYDR	Lychnis drummondii	Drummond cockle	Forb	Perennial
MACA	Machaeranthera canescens	Hoary aster	Forb	Perennial
MAGL	Machaeranthera glabriuscula	Woody aster	Half-shrub	Perennial
MAGR	Machaeranthera grindeloides	Woody aster	Forb	Perennial
MATA	Machaeranthera tanacetifolia	Aster	Forb	Annual
MAVI	Mamillaria vivipara	Pink pincushion cactus	Forb	Perennial
MESA	Medicago sativa	Alfalfa	Forb	Perennial
MONU	Monolepis nuttalliana	Nuttall monolepis	Forb	Annual

(continued)

Code	Genus - Species	Common	Life Form	Longevity
MUDI	Musineon divaricatum	Falsecarrot	Forb	Perennial
OPPO	Opuntia polyacantha	Plains pricklypear	Forb	Perennial
ORFA	Orobanche fasciculata	Tufted broomrape	Forb	Perennial
ORHY	Oryzopsis hymenoides	Indian ricegrass	Grass	Perennial
ORLU	Orthocarpus luteus	Owl clover	Forb	Annual
OXSE	Oxytropis sericea	White pointloco	Forb	Perennial
OXY	Oxytropis spp.	Pointloco	Forb	Perennial
PEER	Penstemon eriantherus	Fuzzytongue penstemon	Forb	Perennial
PEN	Penstemon spp.	Penstemon	Forb	Perennial
PHAU	Physaria australis	Twinpod	Forb	Perennial
PHHO	Phlox hoodii	Hood's phlox	Forb	Perennial
PHMU	Phlox multiflora	Flowery phlox	Forb	Perennial
PIFL	Pinus flexilis	Limber pine	Tree	Perennial
PLPA	Plantago patagonica	Wooly Indianwheat	Forb	Annual
PLSP	Plantago spinescens	Spiny Indianwheat	Forb	Annual
POA	Poa spp.	Bluegrass	Grass	Perennial
POFE	Poa fendleriana	Muttongrass	Grass	Perennial
POGR	Potentilla gracilis	Northwest cinquefoil	Forb	Perennial
POL	Polygonum spp.	Knotweed, smartweed	Forb	Perennial
POSE	Poa secunda	Sandberg bluegrass	Grass	Perennial
POT	Potentilla spp.	Cinquefoil	Forb	Perennial
POTR	Polanisia trachysperma	Clammyweed	Forb	Annual
PUTR	Purshia tridentata	Antelope bitterbrush	Shrub	Perennial
ROS	Rosa spp.	Rose	Shrub	Perennial
RUM	Rumex spp.	Dock, sorrel	Forb	Perennial
SAKA	Salsola kali	Russian thistle	Forb	Annual
SEST	Sedum stenopetalum	Stonecrop	Forb	Perennial
SIHY	Sitanion hystrix	Squirreltail bottlebrush	Grass	Perennial
SPCO	Sphaeralcea coccinea	Scarlet globemallow	Forb	Perennial
STCO	Stipa comata	Needleandthread	Grass	Perennial
STI	Stipa spp.	Needlegrasses	Grass	Perennial
STVI	Stipa viridula	Green needlegrass	Grass	Perennial
TAOF	Taraxacum officinale	Common dandelion	Forb	Perennial
THAR	Thlaspi arvense	Fanweed	Forb	Perennial
TRDU	Tragopogon dubius	Salsify	Forb	Biennial
TRI	Trifolium spp.	Clover spp.	Forb	
UMB	Umbelliferae family	Carrot family		
VER	Veronica spp.	Speedwell	Forb	Annual
VIAM	Vicia americana	American vetch	Forb	Perennial

ARMINTO EXCLOSURE

de Number - 0101

unty - Natrona

gal Description - R87 T37 SW SW Sec. 2

evation - 6100 feet

getation Type - Big Sagebrush - Western Wheatgrass

nce Constructed - 1958

eatments - Contour Furrow and Crested Wheatgrass Seeding 1957

ansects Established - 1965

neral Location - Travel from Waltman to Arminto and follow the main road northwestward for 1.4 miles. Turn right and travel .2 mile along the fence to the enclosure. The Arminto Exclosure can also be reached by traveling from Monita through Lycite to Lost Cabin, then traveling 4.4 miles to the Lyber Ranch turnoff to the right. Follow this for .6 mile, take another right fork, follow this for 7.4 miles to the fork in the road with the Jim Hendrey mailbox. Take the right fork, crossing the creek and travel for 17.8 miles to the trail off the main road which goes to the Arminto Exclosure. The town of Arminto is in sight at this point.

May 1965 Note - Mixed stands of AGSM and CAFI. Good AGCA stand in ntour-seeded area but much apparent increase of ARTR inside, should ve sprayed ARTR when furrowing was done. Furrows holding up well many AGCR seedlings present in ditches. PHHO seems to be dying . Fair amount of EULA, ARPE, STCO, ORHY, and POSE.

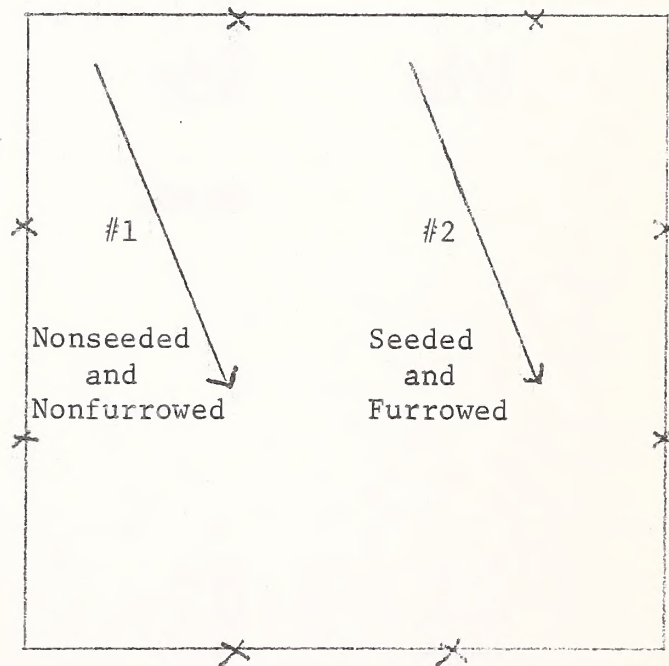
June 1965 Note - ARPE inside exclosure is lead but outside the plants are just ginning to send up seedstalks. Plants lected.

May 1966 Note - Collected plants, mainly els.

plants Observed at Study Area during
1965-1966

Artemisia tridentata
Artemisia pedatifida
Aurotia lanata
Gutierrezia sarothrae
Gutierrezia cristata
Gutierrezia comata
Gutierrezia hymenoides
Gutierrezia secunda
Gutierrezia eleocharis
Gutierrezia filifolia
Gutierrezia hoodii
Gutierrezia polyacantha
Gutierrezia arenosa
Gutierrezia texana
Gutierrezia coccinea

Machaeranthera tanacetifolia
Erigeron pumilus
Crepis modocensis
Trifolium spp.
Astragalus purshii
Astragalus spatulatus
Arenaria hookeri
Allium textile
Cymopterus montanus



#3
Seeded
and
Furrowed

ARMINTO EXCLOSURE

INSIDE NATIVE

	Cover % <u>Total</u>	Cover % <u>Average</u>	Comp. all % <u>Understory</u>	Comp. % by <u>Group</u>	Percent <u>Frequency</u>
<u>13 August 1965</u>					
ARTR	57.5	2.88			35
ARPE	3.5	.17			10
Shrub Total	61.0	3.05			
STCO	12.0	.60	5.89	12.24	60
OPHY	2.0	.10	.98	2.04	05
AGSM	66.0	3.30	32.43	67.36	100
POSE	17.5	.88	8.64	17.96	40
AGCR	0.5	.02	.19	.40	05
Grass Total	98.0	4.90	48.13	100.00	
PHHO	52.0	2.60	25.55	49.24	85
OPPO	50.0	2.50	24.55	47.35	40
LEAR	1.0	.05	.49	.95	05
LATE	2.5	.13	1.28	2.46	20
Forb Total	105.5	5.28	51.87	100.00	
Understory Total	203.5	10.18	100.00		
<u>25 June 1966</u>					
ARPE	19.5	.97			40
ARTR	13.0	.65			25
EULA	7.5	.38			20
Shrub Total	40.0	2.00			
AGCR					
AGSM	18.5	.93	6.81	35.11	75
ORHY	10.5	.52	3.82	19.62	40
POSE	14.0	.70	5.14	26.41	30
STCO	9.5	.48	3.52	18.11	20
CAEL	.5	.02	.15	.75	5
Grass Total	53.0	2.65	19.44	100.00	
PHHO	77.0	3.85	28.25	35.06	80
OPPO	141.0	7.06	51.79	64.30	45
LEAR					
LATE					
ERPU	.5	.02	.15	.18	5
SPCO	1.0	.05	.37	.46	5
Forb Total	219.5	10.98	80.56	100.00	
Understory Total	272.5	13.63	100.00		

ARMINTO EXCLOSURE

	Cover % <u>Total</u>	Cover % <u>Average</u>	Comp. all % <u>Understory</u>	Comp. % by <u>Group</u>	Percent <u>Frequency</u>
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INSIDE SEEDED AND FURROWED

13 August 1965

ARTR	50	2.50			20
ARPE	<u>2</u>	<u>.10</u>			05
Shrub Total	52	2.60			
STCO	6	.30	2.68	4.54	25
ORHY					00
POSE	14	.70	6.25	10.60	40
AGSM	60	3.00	26.79	45.47	90
AGCR	<u>52</u>	<u>2.60</u>	<u>23.21</u>	<u>39.39</u>	35
Grass Total	132	6.60	58.93	100.00	
PHHO	39	1.95	17.41	42.39	55
OPPO	48	2.40	21.43	52.18	20
LEAR					
LATE	<u>5</u>	<u>.25</u>	<u>2.23</u>	<u>5.43</u>	20
Forb Total	92	4.60	41.07	100.00	
Understory Total	224	11.20	100.00		

25 June 1966

ARPE	2	.10			5
ARTR	41.50	2.08			30
EULA	<u>2.00</u>	<u>.10</u>			5
Shrub Total	45.50	2.28			
CAEL	2.0	.10	.90	5.26	20
AGSM					
ORHY					
POSE	5.50	.28	2.52	14.74	35
STCO	2.0	.10	.90	5.26	5
AGCR	17.0	.85	7.64	44.74	40
AGR	<u>11.50</u>	<u>.57</u>	<u>5.13</u>	<u>30.00</u>	50
Grass Total	38.0	1.90	17.09	100.00	
PHHO	54.0	2.70	24.28	29.28	65
OPPO	128.50	6.43	57.82	69.74	20
LEAR					
LATE					
SPCO	1.0	.05	.45	.54	5
MATA	.50	.02	.18	.22	5
ERPU	<u>.50</u>	<u>.02</u>	<u>.18</u>	<u>.22</u>	5
Forb Total	184.50	9.22	82.91	100.00	
Understory Total	222.50	11.12	100.00		

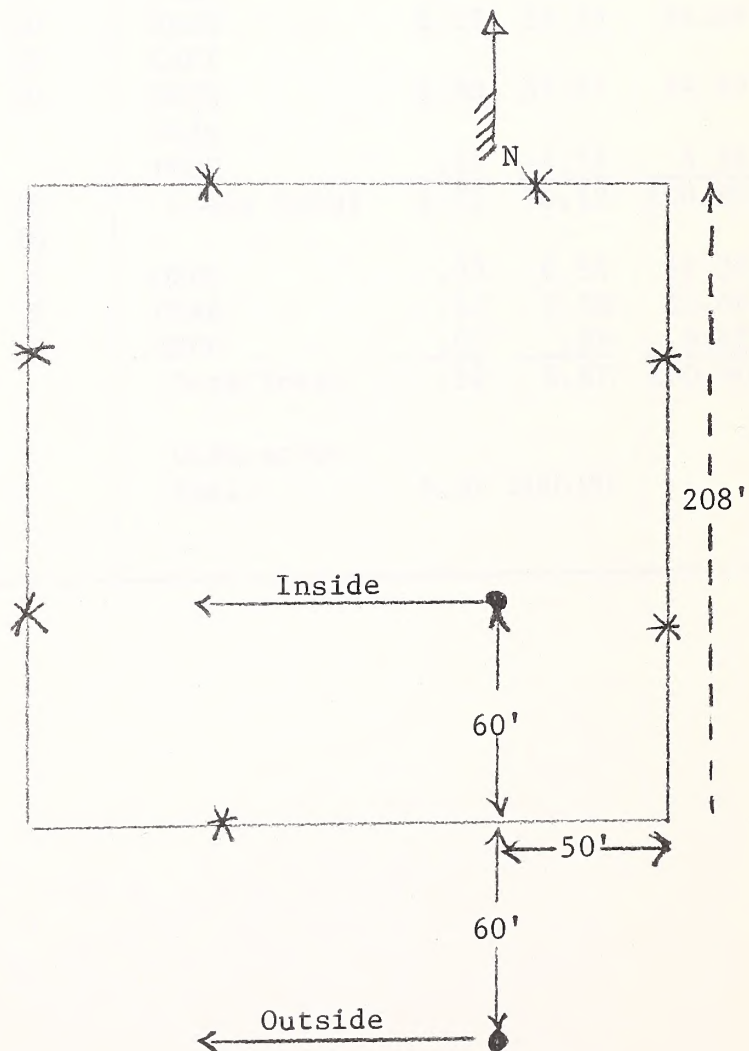
ARMINTO EXCLOSURE

OUTSIDE FURROWED AND SEEDED

	Cover % <u>Total</u>	Cover % <u>Average</u>	Comp. all % <u>Understory</u>	Comp. % by <u>Group</u>	Percent <u>Frequency</u>
<u>13 August 1965</u>					
ARTR	78.5	3.925			20
ARPE					00
Shrub Total	<u>78.5</u>	<u>3.925</u>			
STCO	2	.10	1.25	1.57	15
ORHY	1	.05	.62	.78	05
AGSM	90	4.50	56.26	70.88	100
POSE	24	1.20	15.00	18.90	60
AGCR	10	.50	6.25	7.87	15
Grass Total	<u>127</u>	<u>6.35</u>	<u>79.38</u>	<u>100.00</u>	
PHHO	11	.55	6.87	33.33	45
OPPO	20	1.00	12.50	60.61	10
LEAR					00
LATE	2	.10	1.25	6.06	15
Forb Total	<u>33</u>	<u>1.65</u>	<u>20.62</u>	<u>100.00</u>	
Understory Total	160	8.00	100.00		
<u>25 June 1966</u>					
ARPE	16.5	.82			35
ARTR	61.5	3.08			15
EULA	2.0	.10			5
Shrub Total	<u>80.0</u>	<u>4.00</u>			
AGR					
AGCR	1.5	.08	.99	2.86	15
AGSM	40.0	2.00	24.84	71.43	95
ORHY					
POSE	7.5	.37	4.60	13.21	35
STCO					
CAFI	7.0	.35	4.35	12.50	10
Grass Total	<u>56.0</u>	<u>2.80</u>	<u>34.78</u>	<u>100.00</u>	
PHHO	14.5	.72	8.94	13.71	40
OPPO	90.0	4.51	56.03	85.91	10
LEAR					
LATE					
SPCO	.5	.02	.25	.38	5
Forb Total	<u>105.0</u>	<u>5.25</u>	<u>65.22</u>	<u>100.00</u>	
Understory Total	161.0	8.05	100.00		

BIG BEND ENCLOSURE

e Number - 1511
 nty - Hot Springs
 al Description - R91W T43N NE Sec. 1
 etation Type - Big Sagebrush - Western Wheatgrass
 yation - 4700 ft.
 ce Constructed - 1966
 atments - None
 nsects Established - 1966 - Inside, Outside
 eral Location - Go south out of Worland on Nowater Road for 2.9 miles, turn left at Kootis Stockyards and go east for .2 mile, then turn right and go south for 1.4 miles and cross irrigation canal, continue southward for 2.8 miles and cross east fork Nowater River, continue southward for 2.3 miles to the Worland Cattle Co. Enclosure which is about 50 yards NE of the road, continue southward for 5.9 miles, take the right fork to south on Nowater Trail for 7.9 miles, take the left fork to SE for 4.2 miles, turn right off Nowater Trail and go southward for .3 mile, take the left fork still south for .1 mile, take the left fork for .2 mile and enclosure is about 150 yards west of the road.



nts Observed During 1966

emisia tridentata	Carex filifolia
otia lanata	Bromus tectorum
opyron smithii	Bromus japonicus
opyron spicatum	Opuntia polyacantha
secunda	Plantago patagonica
mus tectorum	Sphaeralcea coccinea
teloua gracilis	Lepidium densiflorum
tuca octoflora	Phlox hoodii
anion hystrix	

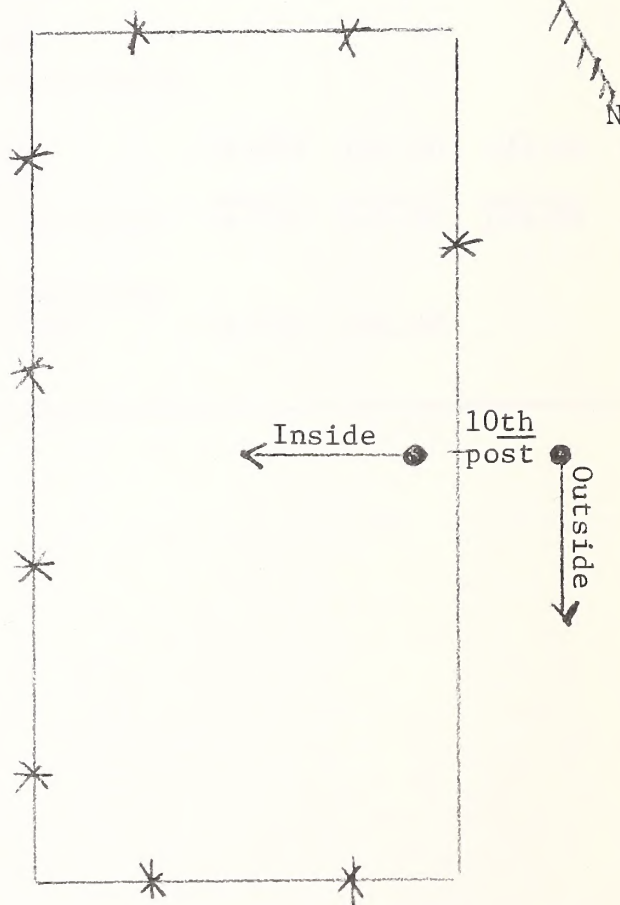
BIG BEND EXCLOSURE

July 15, 1966

INSIDE					OUTSIDE				
	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	15.25			60	ARTR	11.65			50
EULA	.35			10	EULA	.10			5
Shrub Total	15.60				Shrub Total	11.75			
AGSM	.55	10.98	11.90	80	AGSM	.58	11.01	12.21	85
POSE	.92	18.36	19.91	60	AGSP				
BRTE	1.75	34.93	37.89	85	POSE	.82	15.56	17.26	55
FEOC	.10	2.00	2.16	20	BOGR	1.22	23.15	25.68	35
BOGR	1.25	24.95	27.06	20	CAFI				
SIHY	.05	1.00	1.08	10	BRTE	1.88	35.67	39.59	95
Grass Total	4.62	92.22	100.00		BRJA				
OPPO	.10	2.00	25.64	10	FEOC	.25	4.74	5.26	50
PLPA	.20	3.98	51.28	30	Grass Total	4.75	90.13	100.00	
SPCO	.02	.40	5.13	5	OPPO	.35	6.64	67.30	5
LEDE	.02	.40	5.13	5	PLPA	.12	2.28	23.08	25
PHHO	.05	1.00	12.82	5	SPCO	.05	.95	9.62	10
Forb Total	.39	7.78	100.00		Forb Total	.52	9.87	100.00	
Understory Total	5.01	100.00			Understory Total	5.27	100.00		

BIG FLAT ENCLOSURE

e Number - 0916
 nty - Big Horn
 al Description - R92W T50N NE NW Sec. 20
 vation - 4200 ft.
 etation Type - Nuttall's saltbush
 ce Constructed - 1949
 atments - Seeding & Blading - 1949
 nsects Established - 1965 - Inside, Outside
 eral Location - Take the Hyattville Road out of Manderson for 1.7 miles and follow the oil company oiled road going north for .6 mile and go east for .3 mile and turn north on Bladed pipeline trail and go .9 of a mile and enclosure is about 100 yards west. The Big Flat Enclosure can also be reached by traveling more or less westward from the Horse Haven Enclosure by following the ridge road and going westward turning northward when hitting the trail going up to the Big Flat Enclosure. The distance from the Horse Haven to the Big Flat Enclosure is approximately 5 miles.



nts Observed During 1965-1966

plex nuttallii
 secunda
 union hystrix
 pyron cristatum
 us junceus
 ogeton glomeratus
 laeranthra tanacetifolia
 ulla redowskii
 urainia pinnata
 anisia trachysperma
 ysothamnus viscidiflorus

BIG FLAT EXCLOSURE

August 14, 1965

INSIDE

OUTSIDE

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ATNU	<u>6.8</u>			75	ATNU	<u>4.175</u>			85
Shrub Total	6.8				Shrub Total	4.175			
AGCR	.95	57.93	60.51	15	AGCR				
SIHY	<u>.62</u>	<u>37.80</u>	<u>39.49</u>	35	SIHY				
Grass Total	1.57	95.73	100.00		Grass Total				
HAGL	.02	1.22	28.57	5	HAGL	3.575	100.00	100.00	95
MATA	<u>.05</u>	<u>3.05</u>	<u>71.43</u>	5	MATA				
Forb Total	.07	4.27	100.00		Forb Total	3.575	100.00	100.00	
Understory Total	1.64	100.00			Understory Total	3.575	100.00		

BIG FLAT EXCLOSURE

June 10, 1966

INSIDE

OUTSIDE

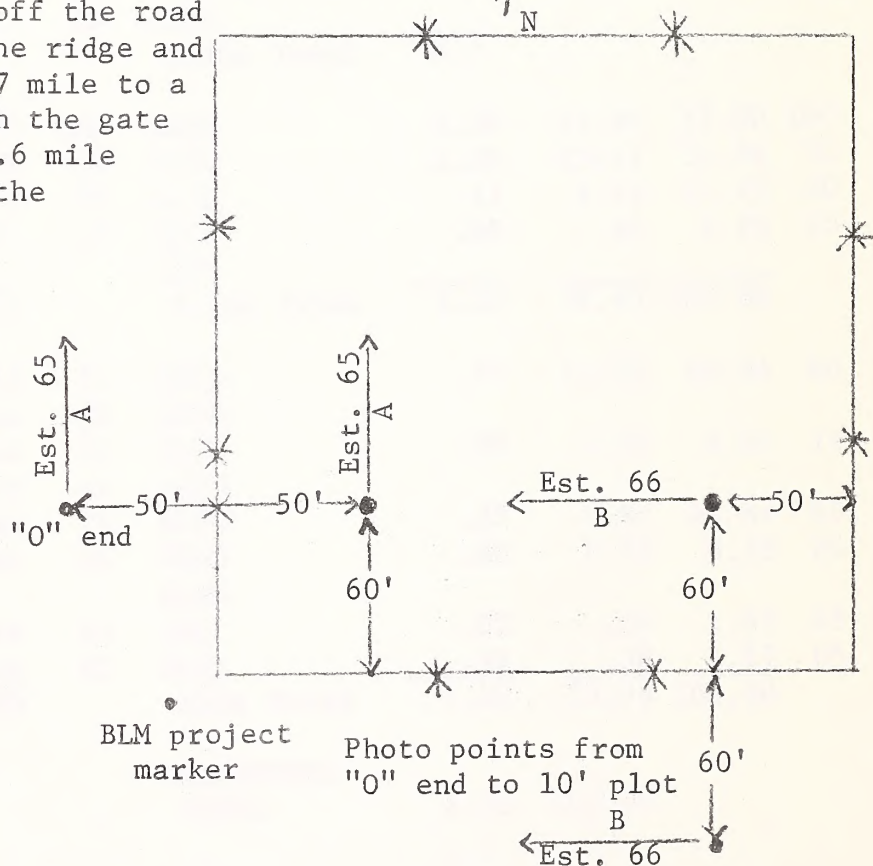
	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ATNU	<u>6.32</u>			85	ATNU	<u>12.20</u>			85
Shrub Total	6.32				Shrub Total	12.20			
POSE	.08	1.56	1.79	10	POSE	.05	4.63	50.00	5
SIHY	2.80	54.47	62.50	60	SIHY	<u>.05</u>	<u>4.63</u>	<u>50.00</u>	5
ELJU					Grass Total	.10	9.26	100.00	
AGCR	<u>1.60</u>	<u>31.13</u>	<u>35.71</u>	10					
Grass Total	4.48	87.16	100.00		HAGL	.60	55.55	61.22	100
					MATA	.15	13.89	15.31	25
DEPI	.22	4.28	33.33	45	LARE	.08	7.41	8.16	15
LARE	.32	6.23	48.49	65	DEPI	.15	13.89	15.31	30
MATA	<u>.12</u>	<u>2.33</u>	<u>18.18</u>	20	POTR				
Forb Total	.66	12.84	100.00		Forb Total	.98	90.74	100.00	
Understory					Understory				
Total	5.14	100.00			Total	1.08	100.00		

BIG TRAILS EXCLOSURE

Number
ty
l Description
ation
tation Type
e Constructed
tments
sects Established
ral Location

- 2011
- Washakie
- R88W T43N NE SE Sec. 5
- 5000 ft.
- Sagebrush-Grass
- 1962
- None
- 1965 - Inside A, Outside A; 1966 - Inside B, Outside B
- Travel south from Worland on oiled road going past sugar factory - 2.5 miles - to Coutis Livestock Yards. Turn left, going east for .3 mile, turn right, continue southward for 1.4 on oiled road to canal bridge. Continue southward on Nowater Road for 36.2 miles to Buffalo Creek Exclosure turnoff, continue on the Nowater Road to the southeast for 3.6 miles and then take the left fork to the north for 2.9 miles to the Squaw Creek Crossing. Follow the road across the creek and pass the ranch buildings and go east for .7 mil and cross the small creek bed below the road for .2 mile to a fork. Take the left fork for .4 mile and turn off the road and go north on the ridge and on the flat for .7 mile to a fence. Go through the gate in the fence and .6 mile farther north to the exclosure.

Exp. 80° Approx.
Slope 7% Approx.



Plants Observed During 1965-1966

<i>Lewisia tridentata</i>	<i>Sphaeralcea coccinea</i>
<i>Gerardia sarothrae</i>	<i>Plantago patagonica</i>
<i>Pyron smithii</i>	<i>Lomatium orientale</i>
<i>Pyron spicatum</i>	<i>Antennaria dimorpha</i>
<i>Secunda</i>	<i>Astragalus grayi</i>
<i>Gerardia cristata</i>	<i>Penstemon eriantherus</i>
<i>Deloua gracilis</i>	<i>Erigeron pumilus</i>
<i>Lewisia filifolia</i>	<i>Lewisia rediviva</i>
<i>Gerardia comata</i>	<i>Astragalus missouriensis</i>
<i>Gerardia acuminatus</i>	<i>Astragalus purshii</i>
<i>Alleja angustifolia</i>	<i>Allium textile</i>
<i>Lewisia hoodii</i>	<i>Trifolium spp.</i>
<i>Gerardia polyacantha</i>	<i>Antennaria rosea</i>

BIG TRAILS EXCLOSURE

June 22, 1965

INSIDE A

OUTSIDE A

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	3.65			35%	ARTR	8.7			50%
EUSA	.05			10	GUSA				
Shrub Total	<u>3.70</u>				Shrub Total	<u>8.7</u>			
AGSM	2.60	38.40	55.09	100	AGSM	2.28	43.86	57.00	100
POSE	.50	7.38	10.59	50	POSE	1.20	23.07	30.00	70
KOCR	.32	4.72	6.78	25	KOCR	.47	9.03	11.75	40
BOGR	1.30	19.22	27.54	15	BOGR	.05	.96	1.25	05
CAFI					CAFI				
Grass Total	<u>4.72</u>	<u>69.72</u>	<u>100.00</u>		Grass Total	<u>4.00</u>	<u>76.92</u>	<u>100.00</u>	
PHHO	1.45	21.40	70.73	70	PHHO	.73	14.06	60.84	40
SPCO	.05	.74	2.44	10	PEER				
ERPU	.05	.74	2.44	10	SPCO	.08	1.54	6.66	15
ASPU	.18	2.66	8.78	15	ERPU				
CRAC	.10	1.48	4.88	15	ASPU	.25	4.80	20.83	05
PEER	.12	1.78	5.85	25	CRAC	.10	1.92	8.33	20
ALTE					ALTE				
CAAN	.05	.74	2.44	10	TRI	.02	.38	1.67	05
ANRD	.05	.74	2.44	05	PLPA	.02	.38	1.67	05
Forb Total	<u>2.05</u>	<u>30.28</u>	<u>100.00</u>		Forb Total	<u>1.20</u>	<u>23.08</u>	<u>100.00</u>	
UNDERSTORY					UNDERSTORY				
TOTAL	6.77	100.00			TOTAL	5.20	100.00		

BIG TRAILS EXCLOSURE

July 7, 1966

INSIDE A

OUTSIDE A

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	3.90			35%	ARTR	8.35			40%
GUSA	.02			5	GUSA				
Shrub Total	3.92				Shrub Total	8.35			
AGSM	.18	2.29	3.22	30	AGSM	.08	1.41	1.94	15
AGSP	2.30	29.22	41.15	85	AGSP	1.85	32.68	44.79	95
POSE	.88	11.18	15.74	70	POSE	1.75	30.92	42.37	90
KOCR	.88	11.18	15.74	50	KOCR	.45	7.95	10.90	40
BOGR	1.30	16.52	23.26	20	BOGR				
CAFI					CAFI				
STCO	.05	.64	.89	5	STCO				
Grass Total	5.59	71.03	100.00		Grass Total	4.13	72.96	100.00	
CRAC	.08	1.02	3.51	15	CRAC	.10	1.77	6.54	20
CAAN					CAAN	.05	.88	3.27	5
PHHO	1.85	23.49	81.14	70	PHHO	1.22	21.57	79.72	65
OPPO					OPPO				
SPCO	.05	.64	2.19	10	SPCO	.10	1.77	6.54	20
PLPA					PLPA	.02	.35	1.31	5
LOOR	.05	.64	2.19	10	LOOR	.02	.35	1.31	5
ANDI					ANDI				
ASGR?					ASGR?				
PEER	.08	1.02	3.51	10	PEER				
ERPU	.08	1.02	3.51	10	ERPU				
LERE	.02	.25	.88	5	LERE				
ASMI	.02	.25	.88	5	ASMI				
ASPU	.05	.64	2.19	5	ASPU				
Forb Total	2.28	28.97	100.00		ALTE	.02	.35	1.31	5
					Forb Total	1.53	27.04	100.00	
UNDERSTORY					UNDERSTORY				
TOTAL	7.87	100.00			TOTAL	5.66	100.00		

BIG TRAILS EXCLOSURE

July 7, 1966

B

INSIDE

B

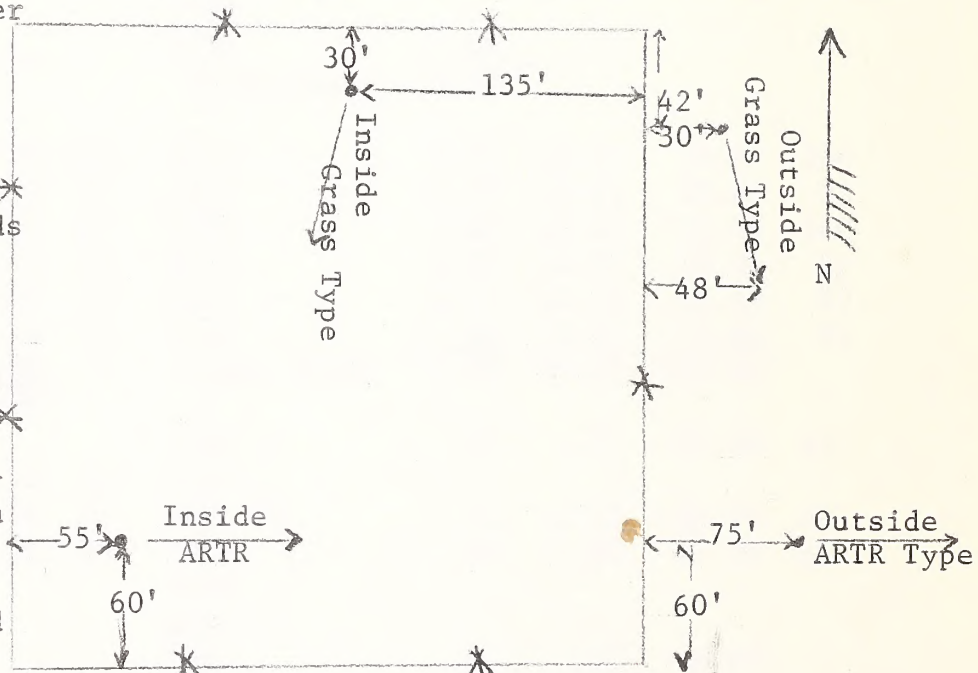
OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	9.28			45%	ARTR	8.05			55%
GUSA					GUSA	.05			
Shrub Total	9.28				Shrub Total	8.10			
AGSM	.40	6.30	9.09	70	AGSM	.40	6.93	9.48	75
AGSP	.58	9.13	13.18	45	AGSP	.62	10.75	14.69	15
POSE	1.47	23.15	33.41	80	POSE	1.45	25.13	34.37	90
KOCR	.60	9.45	13.64	30	KOCR	.58	10.05	13.74	40
BOGR	1.05	16.54	23.86	15	BOGR	1.15	19.93	27.25	30
CAFI	.30	4.72	6.82	5	CAFI				
Grass Total	4.40	69.29	100.00		STCO	.02	.35	.47	5
					Grass Total	4.22	73.14	100.00	
CRAC	.05	.79	2.56	10	CRAC	.10	1.73	6.45	20
CAAN	.02	.31	1.03	5	CAAN				
PHHO	1.25	19.69	64.11	45	PHHO	1.13	19.58	72.91	50
OPPO	.40	6.30	20.51	10	OPPO	.10	1.73	6.45	5
SPCO	.10	1.57	5.13	20	SPCO	.08	1.39	5.16	15
PLPA	.08	1.26	4.10	15	PLPA	.12	2.08	7.74	20
LOOR	.05	.79	2.56	10	LOOR	.02	.35	1.29	5
Forb Total	1.95	30.71	100.00		ANDI				
					ASGR?				
UNDERSTORY					Forb Total	1.55	26.86	100.00	
TOTAL	6.35	100.00							
					UNDERSTORY				
					TOTAL	5.77	100.00		

BUFFALO BASIN EXCLOSURE

e Number - 1101
 nty - Park
 al Description - R100W T47N NW NE Sec. 3
 yation - 6000 ft.
 etation Type - Western Wheatgrass - Sagebrush
 ce Constructed - 1966
 atments - Grass Type and Sagebrush Type
 nsects Established - 1966 - Inside Grass, Inside ARTR, Outside Grass, Outside ARTR
 eral Location - Travel south from Worland on the Thermopolis highway for 8.3 miles to the Gooseberry Junction. Travel westward on the Gooseberry Road for 30.5 miles to the Thermopolis-Meeteetse Junction. Travel northwestward on the Thermopolis-Meeteetse Road for 9.2 miles to the Buffalo Basin turnoff. Turn left on the Buffalo Basin Road which is an oil company oiled road and is the main road in the basin. Follow this road for 4.4 miles and turn left about 200 yards before reaching the Buffalo Basin field headquarters. Follow this road for 1.7 miles in a general north-westerly direction ignoring the sharp turnoffs going southward which lead only to other oil wells. This road ends at the Pan American Petroleum Corp. well No. 7 which is about 200 yards west of the Buffalo Basin enclosure.

8, 1966 Note - The Buffalo Basin enclosure is located in an area with two s. One type consist of a heavy sageh stand and the other is a grass area small scattered sagebrush bushes. basic grasses are bluebunch wheat-s, western wheatgrass, junegrass, and ongrass. The interest in studying two types centers on the invasion or of sagebrush onto these normal open slands. Part of the enclosure could be yed. Rain gauge is on fence north of osure.



ts Observed During 1966

misia tridentata	Carex filifolia
tia lanata	Phlox hoodii
errezia sarothrae	Opuntia polyacantha
sothamnus nauseosus	Astragalus #1
pyron smithii	Astragalus #2
pyron spicatum	Sphaeralcea coccinea
secunda	Erigeron pumilus
eria cristata	Taraxacum officinale
a comata	Lepidium densiflorum
x eleocharis	Tragopogon dubius
	Astragalus purshii

BUFFALO BASIN EXCLOSURE

July 8, 1966

Grass Type

INSIDE

Grass Type

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	.12			15%	ARTR	3.72			25%
CHNA					CHNA				5
GUSA					GUSA				
EULA					EULA	.05			
Shrub Total	.12				Shrub Total	3.77			
AGSM	4.30	42.28	46.64	100.	AGSM	2.95	28.97	30.17	100
AGSP	.40	3.93	4.34	25	AGSP	1.65	16.21	16.87	80
POSE	1.80	17.70	19.52	85	POSE	2.00	19.65	20.45	100
KOCR	1.82	17.90	19.74	75	KOCR	1.30	12.77	13.29	80
STCO	.32	3.15	3.47	25	STCO	1.70	16.70	17.38	95
CAEL	.48	4.72	5.21	75	CAEL	.18	1.77	1.84	25
CAFI	.10	.98	1.08	5	Grass Total	9.78	96.07	100.00	
Grass Total	9.22	90.00	100.00						
PHHO	.10	.98	10.53	10	PHHO	.08	.79	20.00	15
OPPO	.63	6.19	66.31	15	OPPO				
AST #1	.20	1.97	21.05	25	AST. #1	.12	1.18	30.00	10
SPCO					SPCO	.16	1.56	40.00	25
TRDU					TRDU				
AST. #2					AST. #2				
TAOF					TAOF	.02	.20	5.00	5
ASPU					ASPU	.02	.20	5.00	5
LEDE	.02	.20	2.11	5	Forb Total	.40	3.93	100.00	
Forb Total	.95	9.34	100.00						
UNDERSTORY					UNDERSTORY				
TOTAL	10.17	100.00			TOTAL	10.18	100.00		

BUFFALO BASIN EXCLOSURE

July 8, 1966

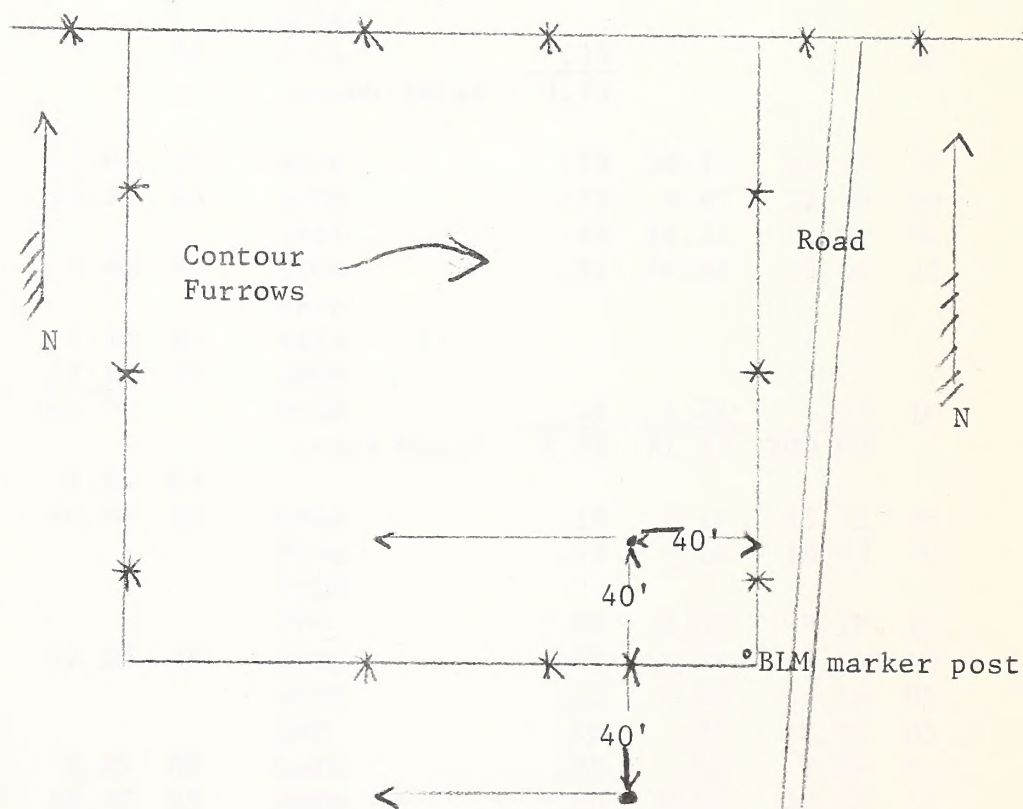
ARTR Type

ARTR Type

INSIDE					OUTSIDE				
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
ARTR	9.15			50%	ARTR	18.35			50%
EULA	.25			10	EULA				
GUSA	.02			5	GUSA				
CHNA					CHNA				
Shrub Total	9.42				Shrub Total	18.35			
AGSM	1.22	13.86	19.12	95	AGSM	1.65	21.80	26.53	95
AGSP	.32	3.64	5.02	35	AGSP	.60	7.93	9.65	45
POSE	1.52	17.27	23.82	65	POSE	1.08	14.27	17.36	60
KOCR	1.59	18.07	24.92	85	KOCR	2.17	28.66	34.89	95
STCO	1.35	15.34	21.16	80	STCO	.42	5.55	6.75	35
CAEL	.38	4.32	5.96	70	CAEL	.30	3.96	4.82	55
Grass Total	6.38	72.50	100.00		Grass Total	6.22	82.17	100.00	
PHHO	.72	8.18	29.75	25	PHHO	.58	7.66	42.96	25
OPPO					OPPO				
AST. #1	1.61	18.29	66.52	75	AST. #1	.73	9.65	54.08	55
AST. #2					AST. #2				
SPCO	.05	.57	2.07	10	SPCO				
ERPU	.02	.23	.83	5	ERPU				
TAOF	.02	.23	.83	5	TAOF	.02	.26	1.48	5
Forb Total	2.42	27.50	100.00		LEDE	.02	.26	1.48	5
					Forb Total	1.35	17.83	100.00	
UNDERSTORY					UNDERSTORY				
TOTAL	8.80	100.00			TOTAL	7.57	100.00		

DEAD INDIAN ENCLOSURE

- Number - 2012
- ty - Washakie
- 1 Description - R88W T45N NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 20
- ation - 4800 ft.
- tation Type - Big Sagebrush - Bluebunch Wheatgrass
- e Constructed - 1965
- tments - Contour Furrow & Crested Seeding 1965
- sects Established - 1965 - Inside Furrowed, Outside Furrowed
- ral Location - Take the blue bank road south from the Tensleep Worland highway for about 12 miles to Big Cedar Ridge. Big Cedar Ridge is 7 miles south of the Bud Kimball enclosure which is passed by traveling on the Bluebank Road. From Big Cedar Ridge take road east for 2.4 miles and take left fork, continue for .1 mile and take right fork straight ahead to east. Continue east for 2.3 miles to fence and follow fence north for .7 mile to enclosure.



Observed During 1965-1966

<i>Isia tridentata</i>	<i>Oryzopsis hymenoides</i>	<i>Penstemon eriantherus</i>
<i>Arrezia sarothrae</i>	<i>Festuca octoflora</i>	<i>Allium textile</i>
<i>Phlox confertifolia</i>	<i>Phlox hoodii</i>	<i>Castilleja</i> spp.
<i>Isia lanata</i>	<i>Sphaeralcea coccinea</i>	<i>Haplopappus acaulis</i>
<i>Eryon</i> spp.	<i>Tragopogon dubius</i>	<i>Camelina microcarpa</i>
<i>Eryon spicatum</i>	<i>Medicago sativa</i>	<i>Descurainia pinnata</i>
<i>Eryon cristatum</i>	<i>Opuntia polyacantha</i>	<i>Lepidium densiflorum</i>
<i>Eryon smithii</i>	<i>Salsola kali</i>	<i>Crepis acuminatus</i>
<i>Aria cristata</i>	<i>Erigeron pumilus</i>	<i>Chenopodium album</i>
<i>E. cecunda</i>	<i>Lappula redowskii</i>	<i>Lactuca integrata</i>
<i>E. comata</i>	<i>Viola</i> spp.	<i>Machaeranthera canescens</i>
<i>E. filifolia</i>	<i>Cryptantha flavoculata</i>	<i>Amaranthus</i> spp.
<i>E. japonicus</i>	<i>Umbelliferae</i> fam.	<i>Helianthus</i> spp.
<i>E. tectorum</i>	<i>Calochortus nuttallii</i>	<i>Boraginaceae</i> spp.

DEAD INDIAN ENCLOSURE

July 17, 1965

Furrowed and Seeded

Furrowed and Seeded

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	2.35			25%	ARTR	3.30			20%
ATCO					ATCO				
EULA					EULA				
GUSA	.37			15	GUSA	.05			10
Shrub Total	2.72				Shrub Total	3.35			
AGSP	.86	35.83	43.00	65	AGSP	.75	30.25	42.15	70
AGCR	.22	9.17	11.00	45	AGCR	.22	8.87	12.36	40
BRJA					CAFI	.48	19.35	26.96	30
BRTE	.02	.83	1.00	05	STCO	.25	10.08	14.04	25
ORHY					BRJA				
STCO	.15	6.25	7.50	25	BRTE				
CAFI	.75	31.25	37.50	25	ORHY				
Grass Total	2.00	83.33	100.00		POSE	.08	3.22	4.49	10
ALTE	.025	1.04	6.25	05	Grass Total	1.78	71.77	100.00	
PHHO	.200	8.35	50.00	10	MESA	.18	7.26	25.71	35
DEPI					SPCO	.13	5.24	18.57	20
LEDE					TRDU				
ERPU					VIO	.05	2.02	7.14	10
SPCO	.050	2.08	12.50	10	CRFL	.05	2.02	7.14	10
CRAC					OPPO	.05	2.02	7.14	05
OPPO					UMB	.02	.80	2.86	05
PEER	.025	1.04	6.25	05	CANU	.02	.80	2.86	05
MESA	.075	3.12	18.75	15	PHHO	.20	8.07	28.58	15
CHAL					Forb Total	.70	28.23	100.00	
LAIN					UNDERSTORY				
SAKA	.025	1.04	6.25	05	TOTAL	2.48	100.00		
CRFL									
Forb Total	.400	16.67	100.00						
UNDERSTORY									
TOTAL	2.4	100.00							

DEAD INDIAN ENCLOSURE

June 10, 1966

Furrowed & Seeded

Furrowed & Seeded

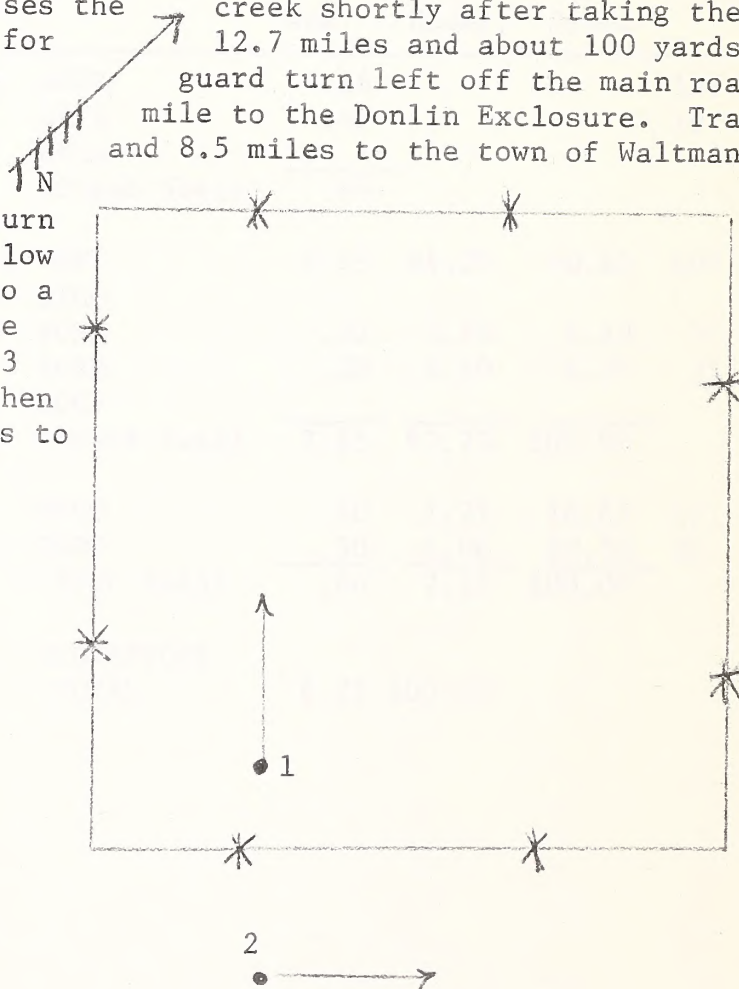
INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	2.85			20%	ARTR	1.86			15%
EULA					GUSA	.12			20
GUSA	.10			20	Shrub Total	1.98			
ATCO									
Shrub Total	2.95				AGR	.22	6.77	8.63	30
					AGSP	.71	21.83	27.84	70
AGR	.18	7.14	8.96	30	AGCR	.15	4.62	5.88	10
AGSP	1.12	44.45	55.71	60	AGSM	.02	.65	.78	5
AGCR	.08	3.17	3.98	10	KOCR				
STCO					POSE	.52	16.00	20.39	40
CAFI	.45	17.86	22.39	35	STCO	.20	6.15	7.84	15
POSE	.18	7.14	8.96	15	CAFI	.73	22.44	28.64	30
FEOC					Grass Total	2.55	78.46	100.00	
AGSM									
KOCR					PHHO	.46	14.14	65.71	15
Grass Total	2.01	79.76	100.00		SPCO	.05	1.54	7.14	10
					TRDU				
SPCO	.02	.79	3.92	5	MESA	.02	.62	2.86	5
PEER	.02	.79	3.92	5	OPPO	.05	1.54	7.14	5
ALTE					SAKA	.08	2.46	11.43	10
MESA	.05	1.98	9.80	10	ERPU	.02	.62	2.86	5
PHHO	.30	11.93	58.84	10	LARE	.02	.62	2.86	5
CAS	.05	1.98	9.80	5	Forb Total	.70	21.54	100.00	
UNK.	.05	1.98	9.80	5					
SAKA	.02	.79	3.92	5	UNDERSTORY				
HAAC					TOTAL	3.25	100.00		
CAMI									
TRDU									
CANU									
Forb Total	.51	20.24	100.00						
UNDERSTORY									
TOTAL	2.52	100.00							

DONLIN ENCLOSURE

Number) - 0102
y - Natrona
Description - R87W T38N Sec. 20
tion - 6200 ft.
ation Type - Grass - Sedge
Constructed - 1958
ments - None
ects Established - 1965 - Inside, Outside
al Location - Travel from Monita through Lycite and through Lost Cabin. At 4.4 miles north of Lost Cabin take the right turn at the Lyber Ranch turnoff. Follow this for .6 mile and take a left fork. Follow this main road for 7.4 miles and take the right fork at the junction of the Jim Hendrey mail box. The road crosses the creek shortly after taking the right fork. Follow this road for 12.7 miles and about 100 yards before crossing a cattle guard turn left off the main road and follow the trail for .7 mile to the Donlin Enclosure. Travel 5.7 miles to Arminto and 8.5 miles to the town of Waltman.//At 1.2 miles north of Arminto, take the left turn to the northwest and follow the road for 4.5 miles to a cattle crossing, take the trail to the right for .3 miles. Take left fork then to the north for .5 miles to the enclosure.



Observed During 1965-1966

ia lanata	Arenaria hookeri
isia pedatifida	Astragalus spp.
isia tridentata	Allium textile
lex confertifolia	Erigeron pumilus
yron smithii	Lappula texana
ecunda	Astragalus purshii
filifolia	Lomatium orientale
comata	Cymopterus montanus
yron cristatum	Lomatium macdouglii
hoodii	Musineon divaricatum
ralcea coccinea	Lesquerella arenosa
maria dioeca	Townsendia incana

DONLIN EXCLOSURE

August 13, 1965

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	2.15			25%	ARTR	.28			15%
ATCD					ARPE	.40			10
EULA					EULA				
Shrub Total	<u>2.15</u>				Shrub Total	<u>.68</u>			
CAFI	10.00	76.23	78.93	95	CAFI	6.95	84.25	90.85	100
STCO					STCO				
POSE	.32	2.44	2.52	20	POSE	.32	3.88	4.18	35
AGSM	.40	3.04	3.16	20	AGSM	.38	4.60	4.97	35
AGCR	1.95	14.86	15.39	45	AGCR				
Grass Total	<u>12.67</u>	<u>96.57</u>	<u>100.00</u>		Grass Total	<u>7.65</u>	<u>92.73</u>	<u>100.00</u>	
SPCO	.10	.76	22.22	10	SPCO	.10	1.21	16.67	10
PHHO	.35	2.67	77.78	20	PHHO	.50	6.06	83.33	30
Forb Total	<u>.45</u>	<u>3.43</u>	<u>100.00</u>		Forb Total	<u>.60</u>	<u>7.27</u>	<u>100.00</u>	
UNDERSTORY					UNDERSTORY				
TOTAL	13.12	100.00			TOTAL	8.25	100.00		

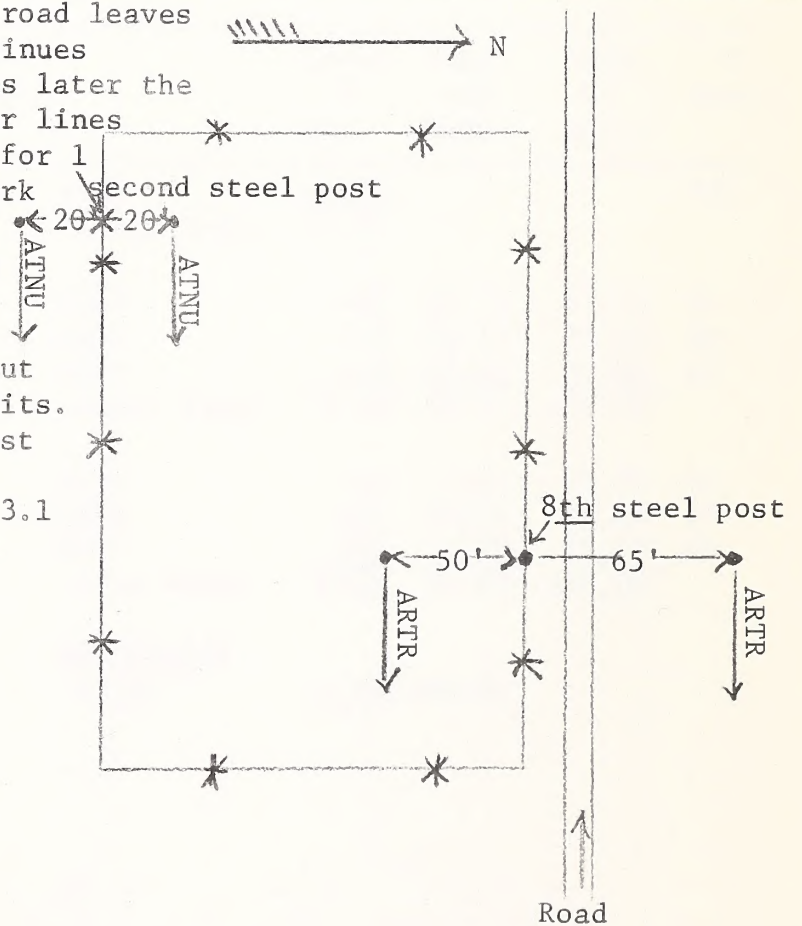
DONLIN EXCLOSURE

June 25, 1966

INSIDE					OUTSIDE				
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
EULA	.30			15%	EULA				
ARPE	.25			10	ARPE	.65			15%
ARTR	.85			15	ARTR				
Shrub Total	<u>1.40</u>				Shrub Total	<u>.65</u>			
AGSM	.12	1.53	1.66	15	AGSM	.42	5.30	5.96	30
POSE	.05	.64	.69	5	POSE	.12	1.51	1.70	15
CAFI	6.43	82.12	88.68	100	CAFI	<u>6.51</u>	<u>82.09</u>	<u>92.34</u>	100
STCO	.65	8.30	8.97	30	Grass Total	7.05	88.90	100.00	
Grass Total	<u>7.25</u>	<u>92.59</u>	<u>100.00</u>						
PHHO	.50	6.39	86.21	25	PHHO	.78	9.84	88.64	45
SPCO	.08	1.02	13.79	10	SPCO	<u>.10</u>	<u>1.26</u>	<u>11.36</u>	20
Forb Total	<u>.58</u>	<u>7.41</u>	<u>100.00</u>		Forb Total	.88	11.10	100.00	
UNDERSTORY					UNDERSTORY				
TOTAL	7.83	100.00			TOTAL	7.93	100.00		

EAST RIDGE ENCLOSURE

- Number - 2013
 Location - Washakie
 Description - R97W T48N SE NW Sec. 33
 Elevation - 5550 ft.
 Vegetation Type - Saltbush - Big Sagebrush
 Year Constructed - 1965
 Treatments - None
 Sections Established - 1965 - Inside ATNU, Inside ARTR, Outside ATNU, Outside ARTR
 General Location - On the Gooseberry Road where the road crosses Gooseberry Creek which is about 5 miles east of the junction of the Gooseberry Road and Highway 120, turn north .3 of a mile east of where the Gooseberry Road crosses the Creek. This is at a benchmark with the numbers 5130 imprinted on it. Go northwestward for 1.8 miles and take a right fork 1.0 miles, beyond the fork the road goes under the power line. Follow this road for .4 miles where the road leaves the power line and continues northwestward. .6 miles later the road crosses under power lines again. Continue north for 1 mile and take a left fork to the west, 1.5 miles beyond take the fork to the north, 2 miles beyond take another right fork which is about 1/2 mile south of Squaw Tits. Continue to the southeast for 2.4 miles and take another right fork for 3.1 miles to the enclosure.



Plants Observed During 1965-1966

<i>Artemisia tridentata</i>	<i>Leptodactylon pungens</i>
<i>Atriplex nuttallii</i>	<i>Lepidium densiflorum</i>
<i>Artemisia tridentata</i>	<i>Allium textile</i>
<i>Artemisia pedatifida</i>	<i>Erigeron pumilus</i>
<i>Artemisia tridentata</i>	<i>Phlox hoodii</i>
<i>Artemisia tridentata</i>	<i>Chenopodium album</i>
<i>Artemisia tridentata</i>	<i>Opuntia polyacantha</i>
<i>Artemisia tridentata</i>	<i>Cordylanthus ramosus</i>
<i>Artemisia tridentata</i>	<i>Crepis acuminatus</i>
<i>Artemisia tridentata</i>	<i>Cryptantha bradburiana</i>
<i>Artemisia tridentata</i>	<i>Umbelliferae</i> fam.
<i>Artemisia tridentata</i>	<i>Thlaspi arvense</i>
<i>Artemisia tridentata</i>	<i>Monolepis nuttalliana</i>
<i>Artemisia tridentata</i>	<i>Castilleja</i> spp.

EAST RIDGE EXCLOSURE

August 11, 1965

ATNU Type

ATNU Type

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ATNU	8.05			60%	ATNU	16.35			70%
Shrub Total	8.05				Shrub Total	16.35			
SIHY	1.45	54.31	84.30	60	SIHY	.92	28.75	42.21	60
POSE					POSE	.68	21.25	31.19	30
ORHY	.27	10.11	15.70	25	ORHY	.58	18.12	26.60	15
Grass Total	1.72	64.42	100.00		Grass Total	2.18	68.12	100.00	
ALTE	.25	9.36	26.32	45	ALTE	.25	7.81	24.51	45
CRBR	.33	12.36	34.73	65	CRBR	.47	14.69	46.08	70
MONU	.37	13.86	38.95	70	MONU	.30	9.38	29.41	60
Forb Total	.95	35.58	100.00		Forb Total	1.02	31.88	100.00	
UNDERSTORY					UNDERSTORY				
TOTAL	2.67	100.00			TOTAL	3.20	100.00		

EAST RIDGE EXCLOSURE

August 11, 1965

ARTR Type

ATNU Type

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ATNU	.45			10%	ATNU				
ARPE					CHVI	.10			05%
CHVI					ARTR	<u>13.05</u>			75
ARTR	<u>21.05</u>			60	Shrub Total	13.15			
Shrub Total	<u>21.50</u>								
SIHY	.83	13.56	32.55	65	AGSM	.80	13.54	31.62	75
POSE	1.42	23.21	55.69	10	POSE	.98	16.58	38.74	65
ORHY	.10	1.63	3.92	10	STCO				
AGSM	<u>.20</u>	<u>3.27</u>	<u>7.84</u>	30	ORHY				
Grass Total	2.55	41.67	100.00		SIHY	<u>.75</u>	<u>12.69</u>	<u>29.64</u>	60
					Grass Total	2.53	42.81	100.00	
ALTE	.12	1.96	3.36	25	OPPO	.15	2.54	4.44	05
VIAM	.25	4.08	7.00	45	PHHO	.50	8.46	14.79	20
PHHO	2.15	35.13	60.24	25	ALTE	.20	3.38	5.92	40
CORA	.43	7.02	12.04	70	CORA	.92	15.58	27.22	100
MONU	.08	1.31	2.24	15	DEPI	.08	1.35	2.36	15
CHAL	.12	1.96	3.36	25	VIAM	.15	2.54	4.44	30
CRBR	.12	1.96	3.36	25	CHAL	.28	4.74	8.28	55
LEDE	.20	3.27	5.60	35	CRAC	.20	3.38	5.92	20
CRAC	.02	.33	.56	05	CRBR	.20	3.38	5.92	40
DEPI	.08	1.31	2.24	15	LEDE	.10	1.69	2.96	20
CAS					ERPU	.58	9.81	17.16	35
Forb Total	<u>3.57</u>	<u>58.33</u>	<u>100.00</u>		UMB	<u>.02</u>	<u>.34</u>	<u>.59</u>	05
					Forb Total	3.38	57.19	100.00	
UNDERSTORY									
TOTAL	6.12	100.00			UNDERSTORY				
					TOTAL	5.91	100.00		

EAST RIDGE ENCLOSURE

June 24, 1966

ATNU Type

ATNU Type

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ATNU	<u>7.10</u>			65%	ATNU	<u>13.88</u>			65%
Shrub Total	7.10				Shrub Total	13.88			
SIHY	3.28	86.31	89.13	80	SIHY	1.15	31.51	34.85	60
ORHY	<u>.40</u>	<u>10.53</u>	<u>10.87</u>	30	POSE	2.07	56.71	62.73	45
Grass Total	3.68	96.84	100.00		ORHY	<u>.08</u>	<u>2.19</u>	<u>2.42</u>	5
					Grass Total	3.30	90.41	100.00	
CHAL	<u>.12</u>	<u>3.16</u>	<u>100.00</u>	20	LARE	.15	4.11	42.86	30
Forb Total	.12	3.16	100.00		CHAL	<u>.20</u>	<u>5.48</u>	<u>57.14</u>	40
UNDERSTORY					Forb Total	.35	9.59	100.00	
TOTAL	3.80	100.00			UNDERSTORY				
					TOTAL	3.65	100.00		

EAST RIDGE ENCLOSURE

June 24, 1966

ARTR Type

ARTR Type

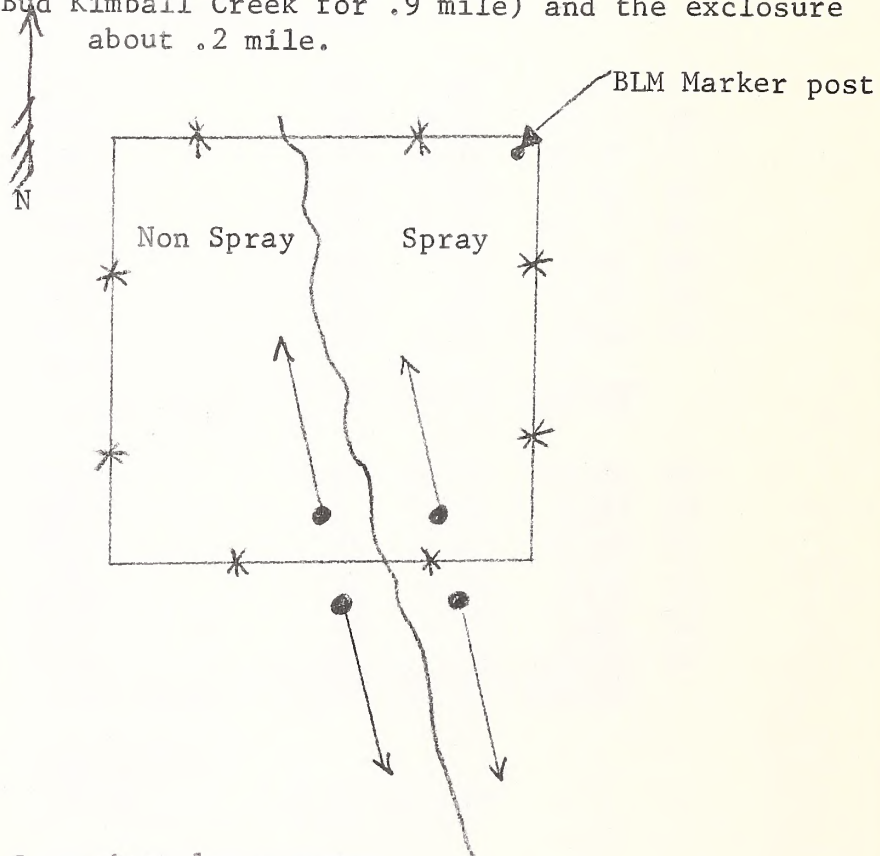
INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	14.55			65%	ARTR	10.30			60%
ATNU	1.60			10	Shrub Total	10.30			
Shrub Total	16.15								
AGSM	.18	3.16	5.29	25	SIHY	.38	7.04	14.34	25
POSE	2.44	42.81	71.77	70	POSE	.90	16.67	33.96	75
SIHY	.78	13.68	22.94	65	AGSM	1.37	25.36	51.70	90
Grass Total	3.40	59.65	100.00		Grass Total	2.65	49.07	100.00	
ALTE	.02	.35	.87	5	LARE	.18	3.33	6.55	35
VIAM	.45	7.89	19.56	55	COM	.18	3.33	6.55	20
PHHO	1.35	23.70	58.70	30	MATA	.02	.37	.73	5
LARE	.15	2.63	6.52	30	VIAM	.18	3.33	6.55	30
LEPU	.08	1.40	3.48	10	DEPI	.18	3.33	6.55	35
THAR	.08	1.40	3.48	10	LEPU	.12	2.22	4.36	20
CHAL	.05	.88	2.17	10	LEDE	.02	.37	.73	5
COM	.10	1.75	4.35	5	ALTE	.10	1.85	3.64	20
DEPI	.02	.35	.87	5	ERPU	1.51	27.99	54.88	35
Forb Total	2.30	40.35	100.00		UNK.	.02	.37	.73	5
UNDERSTORY					PHHO	.20	3.70	7.27	10
TOTAL	5.70	100.00			CHAL	.02	.37	.73	5
					UNK	.02	.37	.73	5
					Forb Total	2.75	50.93	100.00	
					UNDERSTORY				
					TOTAL	5.40	100.00		

EMGEE EXCLOSURE

Number - 2014
County - Washakie
Twp. Description - R88W T46N NE SW Sec. 22
Elevation - 4800 ft.
Vegetation Type - Sagebrush-Grass
Year Constructed - 1965
Treatments - ARTR Sprayed 1964
Insects Established - 1965 - Inside Spray, Inside Non Spray, Outside Spray, Outside Non Spray
General Location - About .1 mile south of the Bud Kimball enclosure take the road going east for 3.6 miles to the fork in the road at the south end of Castle Ridge. One can get to this point also by coming down the Bud Kimball-Two Mile Hill road on the east side of Castle Gardens and Castle Ridge for 6 miles. Go east from this fork for .7 mile, take the right fork to the south and go southeasterly for 4.1 miles and take the left fork (about 1/2 mile north of Bud Kimball Creek for .9 mile) and the enclosure is south of the road about .2 mile.



Insects Observed During 1965-1966

<i>Opuntia tridentata</i>	<i>Opuntia polyacantha</i>	<i>Leptodactylon pungens</i>
<i>Errezia sarothrae</i>	<i>Carex filifolia</i>	<i>Androsace occidentalis</i>
<i>Pyron spicatum</i>	<i>Phlox hoodii</i>	<i>Cordylanthus ramosus</i>
<i>Pyron smithii</i>	<i>Calochortus nuttallii</i>	<i>Musineon divaricatum</i>
<i>secunda</i>	<i>Plantago spinescens</i>	<i>Plantago patagonica</i>
<i>a comata</i>	<i>Antennaria dimorpha</i>	<i>Machaeranthera canescens</i>
<i>us tectorum</i>	<i>Descurainia pinnata</i>	<i>Arenaria hookeri</i>
<i>ca longifolia</i>	<i>Crepis</i> spp.	<i>Atriplex argentea</i>
<i>uca octoflora</i>	<i>Allium textile</i>	<i>Monolepis nuttalliana</i>
<i>eria cristata</i>	<i>Lepidium densiflorum</i>	<i>Chrysothamnus viscidiflorus</i>
<i>nion hystrix</i>	<i>Erigeron pumilus</i>	<i>Gilia leptomeria</i>
<i>eloua gracilis</i>	<i>Tragopogon dubius</i>	<i>Penstemon</i> spp.
		<i>Commandra pallida</i>

EMGEE EXCLOSURE

July 17, 1965

Spray

INSIDE

Spray

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
STCO					ARTR	.15			05%
SIHY	.2	4.27	6.67	15					
AGSP	.18	3.85	6.00	20	Shrub Total	.15			
AGSM	.45	9.62	15.00	50					
POSE	1.97	42.08	65.66	75	SIHY	.10	1.07	2.10	10
FEOC	.05	1.07	1.67	10	AGSM	.48	5.12	10.06	35
BRTE	.15	3.21	5.00	25	AGSP	1.57	16.76	32.91	70
Grass Total	3.00	64.10	100.00		STCO	.12	1.28	2.52	15
					POSE	2.28	24.33	47.79	90
PLSP	.57	12.18	33.93	70	BRTE	.05	.53	1.05	10
LEDE	.15	3.21	8.93	30	FEOC	.07	.75	1.47	10
OPPO	.80	17.09	47.62	15	KOCR	.10	1.07	2.10	10
ANOC	.08	1.71	4.76	15	ARLO				
CORA	.08	1.71	4.76	15	Grass Total	4.77	50.91	100.00	
Forb Total	1.68	35.90	100.00						
UNDERSTORY					OPPO	3.80	40.56	82.61	25
TOTAL	4.68	100.00			PHHO	.2	2.13	4.35	10
					PLSP	.25	2.67	5.43	50
					LEDE	.12	1.28	2.61	25
					ANOC	.18	1.92	3.91	30
					CORA	.05	.53	1.09	10
					Forb Total	4.60	49.09	100.00	
					UNDERSTORY				
					TOTAL	9.37	100.00		

EMGEE EXCLOSURE

July 17, 1965

Non-spray

INSIDE

Non-spray

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
ARTR	9.1			45%	ARTR	<u>12.25</u>			60%
Shrub Total	<u>9.1</u>				Shrub Total	<u>12.25</u>			
AGSP	.25	4.90	8.99	20	AGSP	.30	7.89	11.03	25
AGSM	.58	11.37	20.86	80	AGSM	.12	3.16	4.41	20
POSE	1.80	35.30	64.75	65	POSE	1.92	50.52	70.59	70
KOCR	.10	1.96	3.60	10	STCO	.28	7.37	10.29	20
BRTE	.05	.98	1.80	10	BRTE				
Grass Total	<u>2.78</u>	<u>54.51</u>	<u>100.00</u>		ARLO	.05	1.32	1.84	10
					FEOC	.05	1.32	1.84	10
PHHO	.85	16.68	36.64	20	KOCR				
CRE	.02	.39	.86	05	Grass Total	<u>2.72</u>	<u>71.58</u>	<u>100.00</u>	
PLPA	.73	14.31	31.47	65	ANOC	.10	2.63	9.26	15
OPPO	.70	13.72	30.17	15	PLSP	.28	7.37	25.93	55
CORA	.02	.39	.86	05	CORA	.05	1.32	4.63	10
Forb Total	<u>2.32</u>	<u>45.49</u>	<u>100.00</u>		OPPO	.60	15.78	55.55	5
UNDERSTORY					ALTE	.05	1.32	4.63	10
TOTAL	5.10	100.00			ERPU				
					Forb Total	<u>1.08</u>	<u>28.42</u>	<u>100.00</u>	
					UNDERSTORY				
					TOTAL	3.80	100.00		

EMGEE EXCLOSURE

June 11, 1966

Spray					Spray				
INSIDE					OUTSIDE				
Cover % Ave.	Comp. all Under.	Comp by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.	
ARTR			%	ARTR	.75			5%	
GUSA				Shrub Total	.75				
Shrub Total									
AGSP	.10	2.21	3.14	15	AGSP	1.42	22.83	33.02	80
AGSM	.58	12.80	18.24	65	AGSM	.32	5.14	7.44	50
POSE	1.82	40.18	57.24	80	POSE	2.11	33.93	49.08	90
SIHY	.20	4.42	6.29	10	KOCR	.05	.80	1.16	5
KOCR					ARLO				
BRTE	.38	8.39	11.95	45	BRTE	.15	2.41	3.49	25
STCO	.05	1.10	1.57	5	FEOC	.05	.80	1.16	10
FEOC	.05	1.10	1.57	10	STCO	.20	3.22	4.15	15
BOGR					Grass Total	4.30	69.13	100.00	
ARLO									
CAFI					ALTE	.02	.32	1.04	5
Grass Total	3.18	70.20	100.00		LEDE				
LEDE	.15	3.31	11.11	30	PHHO	.10	1.61	5.21	5
OPPO	.76	16.80	56.30	10	ERPU				
CRE					OPPO	1.78	28.62	92.71	30
ERPU					PLSP				%
MACA					TRDU				
TRDU					LEPU	.02	.32	1.04	5
LEPU					Forb Total	1.92	30.87	100.00	
ARHO									
ATAR					UNDERSTORY				
MONU					TOTAL	6.22	100.00		
PHHO									
PLSP	.42	9.25	31.11	75					
ALTE	.02	.44	1.48	5					
CHVI									
GILE									
PEN									
MUDI									
COPA									
CANU									
Forb Total	1.35	29.80	100.00						
UNDERSTORY									
TOTAL	4.53	100.00							

EMGEE EXCLOSURE

June 11, 1966

Non-spray

Non-spray

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
ARTR	7.15			60%	ARTR	12.35			60%
Shrub Total	7.15				Shrub Total	12.35			
AGSP	.40	7.81	10.53	30	AGSP	.22	8.53	11.58	15
AGSM	.52	10.16	13.68	75	AGSM	.08	3.10	4.21	15
POSE	2.73	53.32	71.83	85	POSE	1.20	46.50	63.16	60
KOCR	.05	.98	1.32	5	STCO	.25	9.69	13.16	25
SIHY	.02	.39	.53	5	BRTE	.08	3.10	4.21	15
BRTE	.08	1.56	2.11	15	ARLO	.05	1.94	2.63	5
Grass Total	3.80	74.22	100.00		FEOC	.02	.78	1.05	5
					Grass Total	1.90	73.64	100.00	
LEPU	.18	3.52	13.64	15	OPPO	.54	20.92	79.42	10
PHHO	.45	8.79	34.09	10	PHHO				
CRE	.05	.98	3.79	5	CANU				
OPPO	.53	10.34	40.13	20	PLSP	.02	.78	2.94	5
ALTE	.02	.39	1.52	5	ANDI	.05	1.94	7.35	5
PLSP	.02	.39	1.52	5	DEPI	.02	.78	2.94	5
MUDI	.02	.39	1.52	5	CRE	.05	1.94	7.35	5
ANDI	.05	.98	3.79	5	Forb Total	.68	26.36	100.00	
Forb Total	1.32	25.78	100.00						
UNDERSTORY					UNDERSTORY				
TOTAL	5.12	100.00			TOTAL	2.58	100.00		

GRASS CREEK DIVIDE EXCLOSURE

Number - 1512
Locality - Hot Springs
General Description - R100W T45N NE NE SW Sec. 3
Elevation - 7000 ft.
Vegetation Type - Mixed Grass - Shrub
Year Constructed - 1966
Treatments - ARTR Spray
Insects Established - 1966
General Location - From the Dickie-LU headquarters follow the Enos Creek Road for 3.3 miles to the junction of the Enos Creek-Grass Creek Roads. Follow the Enos Creek road for .6 mile, turn left and travel for about 2 miles to a fence. Do not go through the fence but follow it for about 1.1 miles to the top of the ridge then go through the fence into the Forked Pasture. Follow the Ridge Top road in this pasture for 1.5 miles to the fence and enter the Lower Grass Creek Pasture. Follow the Ridge Top road in a southwesterly direction for 2.3 miles to the Grass Creek Divide Exclosure.

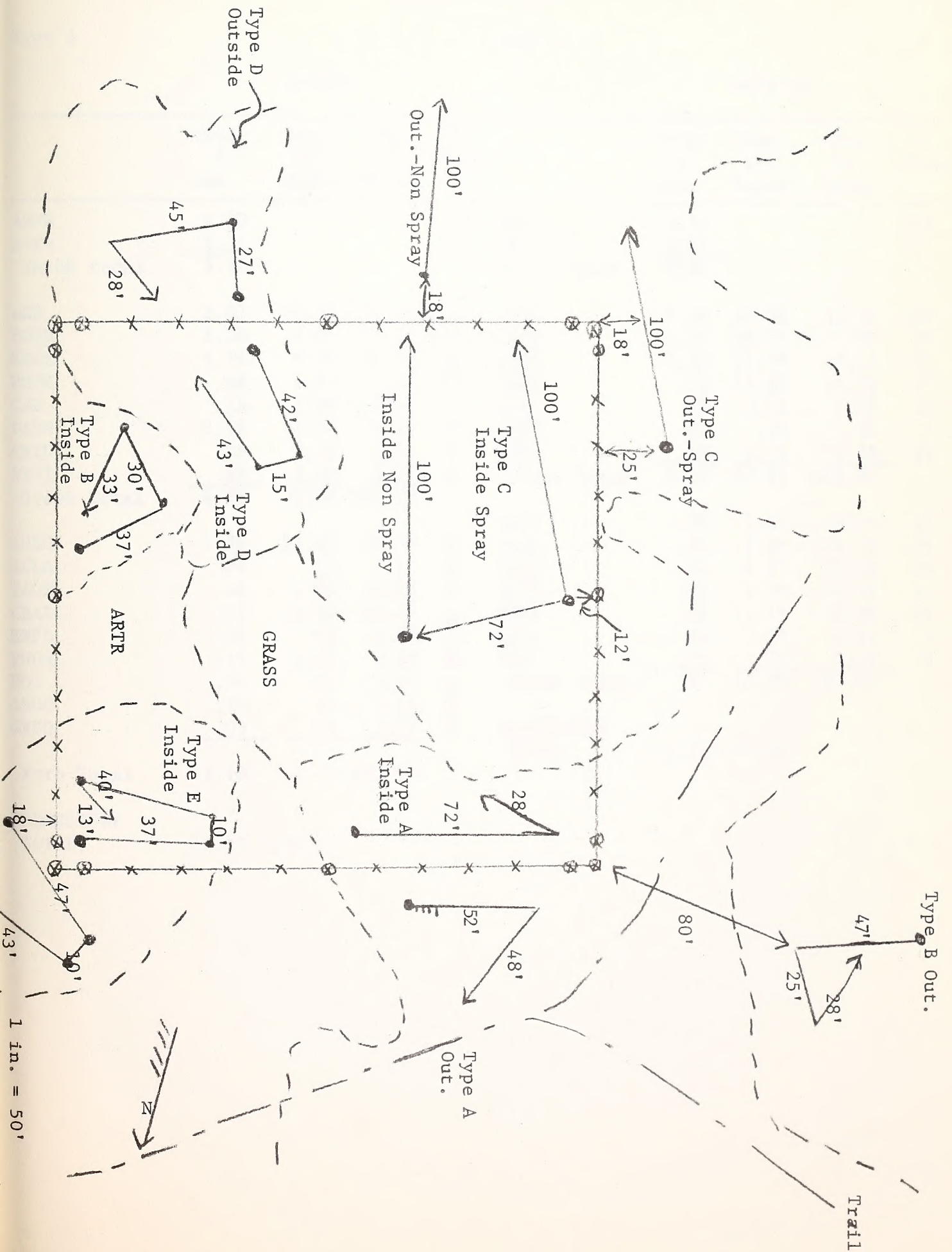
6, 1966 Note

exclosure is on the top of a ridge and encloses a number of vegetative types. One very resting small area is a low depression erosion unit, with apparently some kind of a saline condition. There is very little grass in this saline type. The primary species is some- g similar to *Paronychia sessiliflora*, but apparently is *Arenaria hookeri*. There are two s of open non-sagebrush grass within the exclosure also. One is a rather rocky gravelly with very little vegetation. The other is almost a meadow type with a very dense stand of ses and sedges. There is a dense stand of sagebrush in the exclosure also. The sagebrush bout 3' tall and very dense. Comparable inside and outside areas of each of these four s are available and will be studied

Plants Observed During 1966

<i>Erigeron frigidus</i>	<i>Stipa viridula</i>	<i>Grindelia squarrosa</i>
<i>Erigeron tridentatus</i>	<i>Potentilla gracilis</i>	<i>Polygonum</i> spp.
<i>Erigeron sarothrae</i>	<i>Phlox hoodii</i>	<i>Astragalus miser</i>
<i>Erigeron nauseosus</i> spp.	<i>Taraxacum officinale</i>	<i>Oxytropis</i> spp.
<i>Erigeron secundus</i>	<i>Erigeron compositus</i>	<i>Penstemon</i> spp.
<i>Erigeron cristatus</i>	<i>Androsace occidentalis</i>	<i>Astragalus missouriensis</i>
<i>Erigeron pyron</i> spp.	<i>Cerastium arvense</i>	<i>Vicia americana</i>
<i>Erigeron pyron</i> spicatum	<i>Antennaria rosea</i>	Compositae fam.
<i>Erigeron</i> x spp.	<i>Campanula rotundifolia</i>	<i>Lupinus</i> spp.
<i>Erigeron honia unispicata</i>	<i>Arenaria congesta</i>	<i>Orthocarpus luteus</i>
<i>Erigeron uca idahoensis</i>	<i>Achillea lanulosa</i>	<i>Arnica fulgens</i>
<i>Erigeron</i> stis spp.	<i>Arenaria hookeri</i>	<i>Arnica cordifolia</i>
<i>Erigeron</i> a spp.	<i>Erigeron pumilus</i>	<i>Conringia orientalis</i>
<i>Erigeron fendleriana</i>	<i>Hymenoxys acaulis</i>	<i>Musineon divaricatum</i>
	<i>Potentilla</i> spp.	<i>Dodecatheon</i> spp.
		<i>Ranunculus</i>

GRASS CREEK DIVIDE EXCLOSURE



GRASS CREEK DIVIDE EXCLOSURE

August 17, 1966

Type A

Type A

INSIDE					OUTSIDE				
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARFR	2.08			75%	ARFR	3.58			95%
ARTR	1.22			40	ARTR	1.02			25
Shrub total	3.30				Shrub Total	4.60			
AGR	3.05	25.55	34.86	100	AGR	2.45	34.31	39.40	100
POSE	1.20	10.06	13.71	100	POSE	1.05	14.71	16.88	85
KOCR	1.12	9.39	12.80	80	KOCR	1.22	17.09	19.61	80
POFE	.48	4.02	5.49	40	POFE	.92	12.88	14.79	55
CAR	.15	1.26	1.71	25	CAR	.28	3.92	4.50	55
DAUN	2.22	18.61	25.37	70	DAUN	.02	.28	.32	5
FEID	.28	2.35	3.20	25	STVI	.28	3.92	4.50	20
STVI	.25	2.10	2.86	15	Grass Total	6.22	87.11	100.00	
Grass Total	8.75	73.34	100.00						
ANRO	1.59	13.33	50.00	55	ACLA	.08	1.12	8.70	15
ACLA	.05	.42	1.57	10	CEAR	.20	2.80	21.74	30
TAOF	.48	4.02	15.09	70	TAOF	.34	4.77	36.96	70
CEAR	.60	5.03	18.87	55	ANRO	.15	2.10	16.30	10
ERPU	.08	.67	2.52	15	POGR	.08	1.12	8.70	15
POGR	.15	1.26	4.72	30	ANOC	.02	.28	2.17	5
POT	.08	.67	2.52	15	POT	.05	.70	5.43	5
ANOC	.10	.84	3.14	20	Shrub Total	.92	12.89	100.00	
GRSQ	.05	.42	1.57	10	UNDERSTORY				
Forb Total	3.18	26.66	100.00		TOTAL	7.14	100.00		
UNDERSTORY									
TOTAL	11.93	100.00							

GRASS CREEK DIV. EXCLOSURE

August 17, 1966

Type "B"	INSIDE				Type "B"	OUTSIDE			
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ROS Spp.	.02			5%	SHRUB - (Bare)				
Shrub Total	.02								
DAUN	3.76	38.11	77.54	30	DAUN	3.50	22.92	72.17	50%
POSE	.72	7.29	14.84	35	POSE	1.20	7.86	24.74	70
CAR	.02	.20	.41	5	KOCR	.15	.98	3.09	15
KOCR	.25	2.53	5.15	25	Grass Total	4.85	31.76	100.00	
AGSP	.10	1.01	2.06	5	ARHO	10.42	68.24	100.00	75
Grass Total	4.85	49.14	100.00		Forb Total	10.42	68.24	100.00	
ACLA	.05	.51	1.00	10	UNDERSTORY TOTAL				
ARHO	4.81	48.73	95.80	60		15.27	100.00		
ANRO	.02	.20	.40	5					
GRSQ	.02	.20	.40	5					
POGR	.05	.51	1.00	5					
POL	.05	.51	1.00	10					
UNK	.02	.20	.40	5					
Forb Total	5.02	50.86	100.00						
UNDERSTORY									
Total	9.87	100.00							

GRASS CREEK DIV. EXCLOSURE

July 17. 1966

Spray Type "C"

INSIDE

Spray Type "C"

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	15.32			90%	ARTR	14.10			100%
CHNA					ARFR	.05			10
ARFR	.05			5	Shrub Total	14.15			
Shrub Total	15.37								
FEID	1.38	16.62	26.94	60	FEID	4.39	49.51	68.37	95
DAUN	1.15	13.86	22.46	15	KOCR	.38	4.28	5.92	55
KOCR	.35	4.22	6.84	45	AGR	.30	3.38	4.67	60
AGR	.52	6.26	10.16	90	DAUN	.20	2.25	3.12	20
CAR	.32	3.86	6.25	55	POFE	.55	6.20	8.57	75
POSE	.75	9.04	14.65	65	POSE	.40	4.51	6.23	50
POFE	.65	7.83	12.70	55	CAR	.20	2.25	3.12	40
Grass Total	5.12	61.69	100.00		Grass Total	6.42	72.38	100.00	
ANRO	1.35	16.29	42.46	60	CEAR	.50	5.64	20.41	95
CEAR	.30	3.61	9.43	45	ORLU				
POGR	.28	3.37	8.80	55	POGR	.20	2.25	8.16	40
TAOF	.10	1.20	3.14	20	PHHO	.28	3.16	11.43	25
ACLA	.08	.96	2.52	15	ANRO	.84	9.47	34.28	55
ASMI2	.50	6.02	15.72	80	UNK#1	.05	.56	2.04	10
ANOC	.02	.24	.63	5	TAOF	.18	2.03	7.35	35
POT	.05	.60	1.57	5	POT	.05	.56	2.04	10
PHHO	.38	4.58	11.95	30	ERPU	.02	.23	.82	5
ERPU	.08	.96	2.52	15	ACLA	.08	.90	3.27	15
ERCO	.02	.24	.63	5	ARFU	.05	.56	2.04	10
ARCO2					ASMI2	.05	.56	2.04	10
OXY					OXY	.15	1.69	6.12	30
COOR	.02	.24	.63	5	Forb Total	2.45	27.62	100.00	
Forb Total	3.18	38.31	100.00		UNDERSTORY TOTAL	8.87	100.00		
UNDERSTORY TOTAL	8.30	100.00							

GRASS CREEK DIV. EXCLOSURE

August 17, 1966

Non-spray Type "C"
INSIDENon-spray Type "C"
OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	11.94			95%	ARTR	11.85			80%
ARFR	.18			10	CHNA	.35			10
Shrub Total	12.12				ARFR	.40			20
					Shrub Total	12.60			
AGR 2	.02	.20	.40	5	FEID	1.69	19.66	33.66	35
FEID	2.21	21.98	43.76	55	KOCR	.88	10.23	17.53	75
KOCR	.32	3.18	6.34	40	POFE	1.25	14.53	24.90	75
AGR	.30	2.99	5.94	55	POSE	.42	4.88	8.37	65
POSE	.65	6.47	12.87	65	CAR	.30	3.49	5.98	55
POFE	.95	9.45	18.81	100	AGR	.38	4.42	7.57	60
CAR	.10	1.00	1.98	20	DAUN	.10	1.16	1.99	5
DAUN	.02	.20	.40	5	Grass Total	5.02	58.37	100.00	
STVI	.48	4.78	9.50	35					
Grass Total	5.05	50.25	100.00		OXY	.18	2.09	5.03	30
					ANRO	.70	8.14	19.55	30
CEAR	.35	3.48	7.00	65	CEAR	.28	3.26	7.82	25
ANRO	2.66	26.47	53.20	70	PHHO	.76	8.85	21.23	50
TAOF	.25	2.49	5.00	50	ASMI 2	.55	6.39	15.36	80
POGR	.22	2.19	4.40	45	COM	.05	.58	1.40	10
ASMI2	.32	3.18	6.40	65	TAOF	.05	.58	1.40	10
ERPU	.08	.80	1.60	15	POGR	.25	2.91	6.98	45
ACLA	.15	1.49	3.00	30	ERPU	.02	.23	.56	5
PHHO	.38	3.78	7.60	40	ARHO	.60	6.98	16.76	5
OXY	.32	3.18	6.40	55	POT	.08	.93	2.23	15
HYAC	.10	1.00	2.00	20	ANOC	.02	.23	.56	5
ANOC	.12	1.19	2.40	25	ACLA	.02	.23	.56	5
POT	.05	.50	1.00	10	LUP	.02	.23	.56	5
Forb Total	5.00	49.75	100.00		Forb Total	3.58	41.63	100.00	
UNDERSTORY					UNDERSTORY				
TOTAL	10.05	100.00			TOTAL	8.60	100.00		

GRASS CREEK DIVIDE EXCLOSURE

August 18, 1966

Type "D"	Type "D"			
	INSIDE			
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARFR	.98			65%
GUSA	2.32			90
ARTR	.65			15
Shrub Total	3.95			
POSE	.52	4.49	9.12	75
KOCR	.62	5.35	10.88	80
AGR	.72	6.22	12.63	80
POFE	1.72	14.85	30.18	100
STVI	1.02	8.81	17.89	30
FEID	.20	1.73	3.51	15
AGSP	.65	5.61	11.40	55
CAR	.05	.43	.88	5
DAUN	.20	1.73	3.51	10
Grass Total	5.70	49.22	100.00	
ARHO	2.57	22.21	43.72	70
POGR	.40	3.45	6.80	70
GRSQ	.40	3.45	6.80	70
ASMI	.42	3.63	7.14	80
VIAM	.08	.69	1.36	15
PHHO	.88	7.60	14.97	80
TAOF	.25	2.16	4.25	50
ERPU	.22	1.90	3.74	35
HYAC	.18	1.55	3.06	25
ANOC	.08	.69	1.36	15
POT	.08	.69	1.36	15
ACLA	.05	.43	.85	10
CEAR	.05	.43	.85	10
UNK#1	.05	.43	.85	10
ERCO	.15	1.30	2.55	25
ANRO	.02	.17	.34	5
Forb Total	5.88	50.78	100.00	
UNDERSTORY TOTAL	11.58	100.00		
	Type "D"			
	OUTSIDE			
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	.80			30%
ARFR	1.72			70
GUSA	.48			60
Shrub Total	3.00			
AGR 2				
FEID	.22	2.77	5.57	15
KOCR	.98	12.33	24.81	90
AGR	1.13	14.20	28.61	95
POSE	.95	11.95	24.05	90
CAR	.15	1.89	3.80	30
DAUN				
STI				
POFE	.52	6.54	13.16	40
Grass Total	3.95	49.68	100.00	
CEAR				
ANRO	.45	5.66	11.25	15
TAOF	.12	1.51	3.00	25
POGR	.10	1.26	2.50	20
ASMI2	.35	4.40	8.75	65
ERPU				
ACLA				
PHHO	.60	7.55	15.00	60
OXY				
HYAC	.05	.63	1.25	10
ANOC				
POT	.05	.63	1.25	10
GRSQ	.08	1.01	2.00	10
ARHO	2.08	26.16	52.00	65
ERCO	.10	1.26	2.50	15
PEN	.02	.25	.50	5
Forb Total	4.00	50.32	100.00	
UNDERSTORY TOTAL	7.95	100.00		

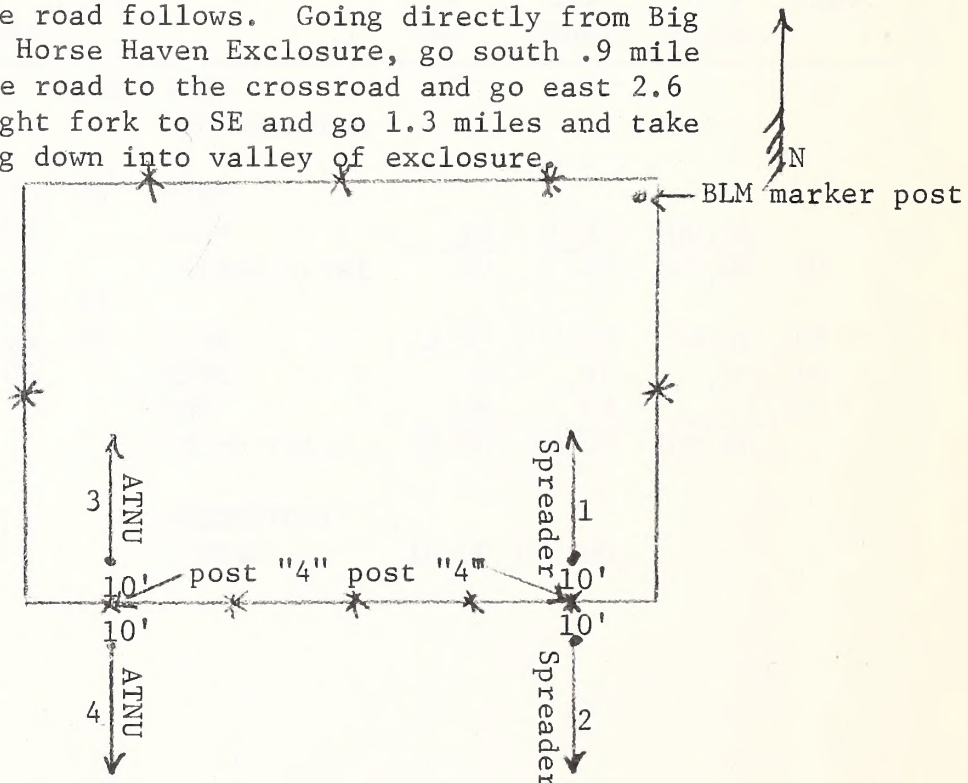
GRASS CREEK DIV. EXCLOSURE

August 17, 1966

Type "E"					Type "E"				
INSIDE					OUTSIDE				
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
ARFR	.48			35%	ARFR	.52			50%
ARTR	.05			10	ARTR	1.23			30
GUSA	.05			10	GUSA	.10			5
Shrub Total	.58				Shrub Total	1.85			
AGSP	.72	8.50	13.71	80	POSE	1.72	16.03	21.91	100
AGR					KOCR	1.55	14.45	19.74	100
KOCR	1.22	14.40	23.24	95	AGR	.02	.19	.25	5
POSE	.95	11.22	18.09	90	AGSP	.22	2.05	2.80	20
FEID	.40	4.72	7.62	20	CAR	.65	6.06	8.28	55
DAUN	1.56	18.42	29.72	55	DAUN	3.47	32.33	44.22	65
CAR	.40	4.72	7.62	25	FEID	.22	2.05	2.80	30
Grass Total	5.25	61.98	100.00		Grass Total	7.85	73.16	100.00	
PHHO	.60	7.08	18.64	35	POGR	.45	4.19	15.62	70
ARHO	.91	10.75	28.28	45	PHHO	.12	1.12	4.17	15
ERPU	.25	2.95	7.76	30	TAOF	.55	5.13	19.10	100
CEAR	.40	4.72	12.42	40	ERCO	.12	1.12	4.17	15
TAOF	.05	.59	1.55	10	ANOC	.05	.47	1.74	10
POGR	.25	2.95	7.76	45	CEAR	.22	2.05	7.64	40
ANRO	.32	3.78	9.94	25	ANRO	.25	2.33	8.68	10
ACLA	.08	.94	2.48	15	CARO	.08	.75	2.78	10
ANOC	.02	.24	.62	5	ARCO	.84	7.81	29.15	85
ARCO	.20	2.36	6.21	25	ACLA	.08	.75	2.78	15
HYAC	.02	.24	.62	5	UNK#1	.12	1.12	4.17	25
POT	.02	.24	.62	5	Forb Total	2.88	26.84	100.00	
UNK#1	.02	.24	.62	5					
GRSQ	.08	.94	2.48	10	UNDERSTORY				
Forb Total	3.22	38.02	100.00		TOTAL	10.73	100.00		
UNDERSTORY									
TOTAL	8.47	100.00							

HORSE HAVEN EXCLOSURE

- Number - 0917
- y - Big Horn
- Description - R92W T50N SE NW Sec. 14
- tion - 4200 ft.
- ation Type - Nuttall's Saltbush
- Constructed - 1947
- ments - Blading & Seeding in Water Spreader System in 1947
- ects Established - 1965 - Inside Native, Outside Native, Inside Spreader, Outside Spreader
- al Location - Follow the oiled road out of Manderson toward Hyattville and turn off of this road just before the highway crosses the No Wood River. Follow this road for about a mile to where it climbs on top of the hills and where a trail can be seen going northward. Follow this trail for 3 miles to the Horse Haven Exclosure which is to the east and in the valley below the ridge on which the road follows. Going directly from Big Flat Exclosure to Horse Haven Exclosure, go south .9 mile on graded pipeline road to the crossroad and go east 2.6 miles and take right fork to SE and go 1.3 miles and take road to east going down into valley of exclosure.



Observed During 1965-1966

lex nuttallii	Lactuca integrata
s junceus	Rumex spp.
yron-rhizoms	Lepidium densiflorum
yron-bunch	Salsola kali
ion hystrix	Chenopodium album
yron smithii	Kochia scoparia
s tectorum	Halogeton glomeratus
um arvense	Monolepis nuttalliana
anthus petiolaris	Atriplex argentea

HORSE HAVEN EXCLOSURE

August 14, 1965

Spreader

Spreader

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
ATNU	<u>23.80</u>			85%	ATNU				
Shrub Total	23.80				Shrub Total				
51HY	<u>.15</u>	<u>9.55</u>	<u>100.00</u>	05	SIHY				
Grass Total	.15	9.55	100.00		AGSM	<u>.20</u>	<u>1.25</u>	<u>100.00</u>	
					Grass Total	.20	1.25	100.00	10
LAIN	1.32	84.08	92.96	35	CIAR	15.55	97.19	98.42	55
Ann. Forbs	<u>.10</u>	<u>6.37</u>	<u>7.04</u>	05	HEPE	.15	.94	.95	15
Forb Total	1.42	90.45	100.00		UNK	<u>.10</u>	<u>.62</u>	<u>.63</u>	05
UNDERSTORY					Forb Total	15.80	98.75	100.00	
TOTAL	1.57	100.00			UNDERSTORY				
					TOTAL	16.00	100.00		

HORSE HAVEN EXCLOSURE

August 14, 1965

Native

Native

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ATNU	<u>6.30</u>			75%	ATNU	<u>4.40</u>			75%
Shrub Total	6.30				Shrub Total	4.40			
No Grasses					No Grasses				
Ann. Forbs	<u>.025</u>	<u>100.00</u>	<u>100.00</u>	05	No Forbs				
Forb Total	.025	100.00	100.00						
UNDERSTORY									
TOTAL	.025	100.00							

HORSE HAVEN EXCLOSURE

June 10, 1966

INSIDE					OUTSIDE				
	Cover % Ave.	Comp. all Under.	Comp. by group	% Freq.		Cover % Ave.	Comp. al Under.	Comp. by Group.	% Freq.
ATNU	30.95			85%	ELJU	.15	2.48	31.25	30%
Shrub Total	30.95				AGR-rh	.12	1.98	25.00	15
					AGR-bu	.21	3.46	43.75	5
ELJU	.40	27.03	100.00	5	Grass Total	.48	7.92	100.00	
BRTE									
Grass Total	.40	27.03	100.00		LAIN	.20	3.30	3.58	15
					CIAR	4.46	73.59	79.93	75
LAIN	1.06	71.62	98.15	55	RUM	.05	.83	.90	5
LEDE	.02	1.35	1.85	5	LEDE				
Forb Total	1.08	72.97	100.00		HEPE	.40	6.60	7.17	30
					SAKA	.10	1.65	1.79	10
UNDERSTORY					CHAL	.20	3.30	3.58	15
TOTAL	1.48	100.00			KOSC	.15	2.48	2.69	15
					HAGL	.02	.33	.36	5
					Forb Total	5.58	92.08	100.00	
					UNDERSTORY				
					TOTAL	6.06	100.00		

HORSE HAVEN EXCLOSURE

June 10, 1966

Native

Native

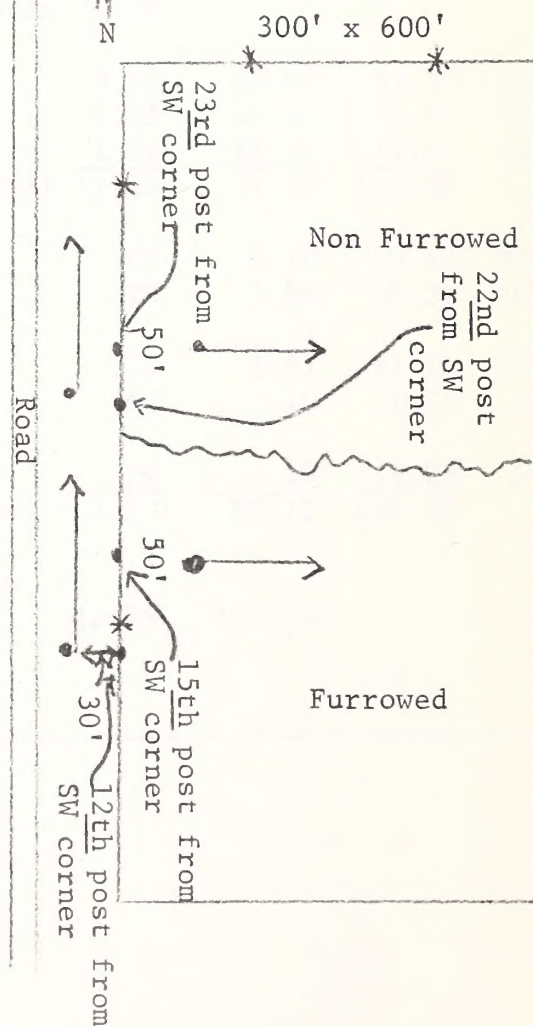
INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ATNU	<u>18.35</u>			90%	ATNU	<u>10.75</u>			85%
Shrub Total	18.35				Shrub Total	10.75			
MONU	.06	75.00	75.00	10	MONU	<u>.08</u>	<u>100.00</u>	<u>100.00</u>	15
LEDE	<u>.02</u>	<u>25.00</u>	<u>25.00</u>	5	Forb Total	.08	100.00	100.00	
Forb Total	.08	100.00	100.00						
UNDERSTORY					UNDERSTORY				
TOTAL	.08	100.00	100.00		TOTAL	.08	100.00	100.00	

MUD SPRINGS EXCLOSURE (Livestock)

- Number - 0103
 Location - Natrona
 Description - R79W T29N W $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 22
 Elevation - 7400 ft.
 Vegetation Type - Grass - Sagebrush
 Year Constructed - 1965
 Comments - Furrowing in 1953
 Effects Established - 1965 - Inside Furrowed, Inside Non Furrowed, Outside Furrowed, Outside Non Furrowed
 General Location - One can get to this enclosure by either of two routes: (1) Turn off the Medicine Bow Highway 487 at the BLM sign of the Bates Hole Conservation Area, which is about 55 miles north of Medicine Bow. Go southeast on the Bates Hole Stock Driveway Road for 13 miles to the enclosure. (2) Turn east off the Medicine Bow Highway 487 at 8.9 miles south of the Highway 487-220 Junction. This turnoff is 7.5 miles north of the BLM Bates Hole Stock Driveway Road turnoff. Go southeast for 14 miles (the Owl Draw Enclosure is passed on this road 8.2 miles from the turnoff), take a right fork for 2.9 miles, take another right fork for .7 miles to the Mud Springs Enclosure.



Plants Observed During 1965-1966

<i>Lesquerella alpestris</i>	<i>Lesquerella alpina</i>
<i>Oenothera viscidiflora</i>	<i>Arenaria hookeri</i>
<i>Trifolium repens</i>	<i>Trifolium</i> spp.
<i>Astragalus</i>	<i>Astragalus</i> spp.
<i>Cordylanthus ramosus</i>	<i>Cordylanthus ramosus</i>
<i>Calochortus nuttallii</i>	<i>Calochortus nuttallii</i>
<i>Allium textile</i>	<i>Allium textile</i>
<i>Antennaria dimorpha</i>	<i>Antennaria dimorpha</i>
<i>Polygonum</i> spp.	<i>Polygonum</i> spp.
<i>Salsola kali</i>	<i>Salsola kali</i>
<i>Monolepis nuttalliana</i>	<i>Monolepis nuttalliana</i>
<i>Arnica fulgens</i>	<i>Arnica fulgens</i>
<i>Lappula redowskii</i>	<i>Lappula redowskii</i>
<i>Hordeum jubatum</i>	<i>Hordeum jubatum</i>

MUD SPRINGS EXCLOSURE

July 21, 1965

INSIDE FURROWED

OUTSIDE FURROWED

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	9.75			55	ARTR	6.25			40
CHVI	.40			5	ARTR2				
Shrub Total	10.15				Shrub Total	6.25			
KOCR	.05	.36	.47	5	AGSM	3.65	28.63	32.79	100
SIHY	.10	.72	.95	5	POSE	6.05	47.44	54.36	90
AGSM	4.50	32.21	42.65	100	POFE	1.43	11.22	12.85	15
POSE	5.20	37.22	49.29	85	Grass Total	11.13	87.29	100.00	
POFE	.70	5.01	6.64	30					
Grass Total	10.55	75.52	100.00		PHHO	.65	5.10	40.12	30
PHHO	3.00	21.48	87.73	55	TRI	.75	5.88	46.31	55
TRI	.25	1.79	7.31	45	ARCO				
SAKA	.02	.14	.58	5	AST #1	.18	1.41	11.11	20
MONU	.02	.14	.58	5	AST #2	.02	.16	1.23	5
ARFU	.05	.36	1.46	5	ALTE				
LARE					POL	.02	.16	1.23	5
AST #1	.08	.57	2.34	10	Forb Total	1.62	12.71	100.00	
Forb Total	3.42	24.48	100.00						
Understory					Understory				
Total	13.97	100.00			Total	12.75	100.00		

MUD SPRINGS EXCLOSURE

July 21, 1965

INSIDE NON-FURROW

OUTSIDE NON-FURROW

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under	Comp. by Group	% Freq.
ARTR	11.65			50	ARTR	14.22			50
Shrub Total	11.65				CHVI	.50			10
					Shrub Total	14.72			
AGSM	3.85	24.60	26.83	100	AGSM	1.70	12.35	17.86	100
SIHY	.20	1.28	1.39	10	POSE	4.30	31.24	45.16	100
POSE	6.15	39.30	42.86	100	POFE	1.95	14.16	20.48	55
POFE	2.55	16.29	17.77	70	KOCR	1.52	11.03	15.97	55
KOCR	1.60	10.22	11.15	45	SIHY	.05	.36	.53	5
Grass Total	14.35	91.69	100.00		Grass Total	9.52	69.14	100.00	
PHHO	1.00	6.39	76.92	40	PHHO	2.55	18.51	60.00	65
TRI	.23	1.47	17.69	45	TRI	.15	1.09	3.53	30
ERI #1	.05	.32	3.85	10	AST #1	.08	.58	1.88	10
DOD	.02	.13	1.54	5	AST #2	.25	1.82	5.88	10
Forb Total	1.30	8.31	100.00		CORA	.10	.73	2.35	5
					CANU				
Understory					ERI #1	.02	.15	.47	5
Total	15.65	100.00			ALTE	.05	.36	1.18	10
					ANRD	1.00	7.26	23.53	5
					ANDI	.05	.36	1.18	5
					Forb Total	4.25	30.86	100.00	
					Understory				
					Total	13.77	100.00		

MUD SPRINGS

August 22, 1966

INSIDE FURROWED

OUTSIDE FURROWED

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	9.82			70	ARTR	3.88			55
CHVI	.10			5	ARTR2	.20			5
Shrub Total	9.92				Shrub Total	4.08			
AGSM	2.92	33.07	40.28	95	AGSM	2.80	35.90	40.29	100
POSE	3.56	40.32	49.10	90	POSE	3.85	49.35	55.39	100
POFE	.62	7.02	8.55	20	POFE	.30	3.85	4.32	10
KOCR					Grass Total	6.95	89.10	100.00	
SIHY	.15	1.70	2.07	10	PHHO	.73	9.35	85.89	35
Grass Total	7.25	82.11	100.00		ARCO				
PHHO	1.41	15.96	89.25	45	ASMI2	.08	1.03	9.41	10
ASMI2	.05	.57	3.16	5	DOD	.02	.26	2.35	5
ARHO	.10	1.13	6.32	5	DEPI	.02	.26	2.35	5
LEAL	.02	.23	1.27	5	Forb Total	.85	10.90	100.00	
Forb Total	1.58	17.89	100.00		Understory				
Understory					Total	7.80	100.00		
Total	8.83	100.00							

MUD SPRINGS EXCLOSURE

Aug. 22, 1966

INSIDE NON-FURROWED

OUTSIDE NON-FURROWED

	Cover % Ave.	Comp. all Under.	Comp. by Group	% freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% freq.
ARTR	<u>11.08</u>			60%	ARTR	11.98			60%
Shrub Total	11.08				CHVI	<u>.22</u>			10
						12.20			
AGSM	2.10	18.10	19.77	100	AGSM	1.15	11.62	15.13	90
POSE	5.15	44.40	48.50	95	POSE	3.15	31.81	41.45	95
POFE	1.80	15.52	16.95	65	POFE	2.05	20.71	26.97	70
KOCR	1.52	13.10	14.31	65	KOCR	<u>1.25</u>	<u>12.63</u>	<u>16.45</u>	80
SIHY	<u>.05</u>	<u>.43</u>	<u>.47</u>	5					
Grass Total	10.62	91.55	100.00		Grass total	7.60	76.77	100.00	
PHHO	.96	8.28	97.96	45	PHHO	1.20	12.11	52.18	60
ERI	<u>.02</u>	<u>.17</u>	<u>2.04</u>	5	ERI	.05	.51	2.17	10
Forb Total	.98	8.45	100.00		ANRO	<u>1.05</u>	<u>10.61</u>	<u>45.65</u>	10
					Forb Total	2.30	23.23	100.00	
UNDERSTORY					UNDERSTORY				
TOTAL	11.60	100.00			TOTAL	9.90	100.00		

OWL DRAW EXCLOSURE (Livestock & Deer)

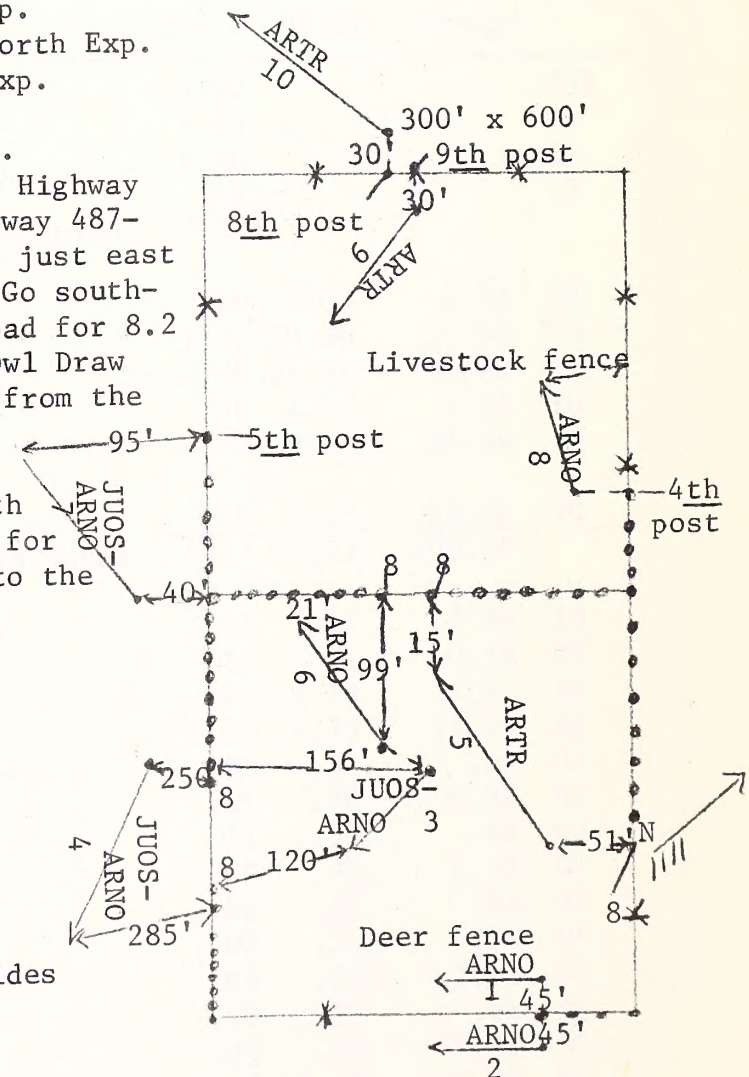
Number - 0104
 Description - Natrona
 - R79W T30N NE NE Sec. 19
 - 6500 ft.
 ation Type - Sagebrush - Juniper
 Constructed - 1965
 nents - Fencing (Deer & Stock) & Site Variations
 ects Established - 1965
 an. #1 - Inside Deer Exc. - ARNO Type - East Exp.
 an. #2 - Outside Deer Exc. - ARNO Type - East Exp.
 an. #3 - Inside Deer Exc. - JUOS-ARNO Type - NE Exp.
 an. #4 - Outside Deer Exc. - JUOS-ARNO Type - NE Exp.
 an. #5 - Inside Deer Exc. - ARTR Type - North Exp.
 an. #6 - Inside Deer Exc. - ARNO Type - North Exp.
 an. #7 - Outside Stock Exc. - ARNO-JUOS Type - North Exp.
 an. #8 - Inside Stock Exc. - ARNO Type - North Exp.
 an. #9 - Inside Stock Exc. - ARTR Type - NW Exp.
 an. #10 - Outside Stock Exc. - ARTR Type - NW Exp.
 al Location - Turn east off the Medicine Bow Highway at 8.9 miles south of the Highway 487-220 junction. This turnoff is just east of the Trailer House School. Go south-eastward on the Bates Creek Road for 8.2 miles to the enclosure. The Owl Draw Exclosure can also be reached from the Mud Springs Exclosure thusly: travel eastward for .7 mile, take left fork and travel north for 2.9 miles, take left fork for about 6 miles going westward to the Owl Draw Exclosure.

ts Observed During 1965-1966

<i>nisia tridentata</i>	<i>Balsamorhiza sagittata</i>
<i>perus osteosperma</i>	<i>Astragalus miser</i>
<i>nisia nova</i>	<i>Arenaria hookeri</i>
<i>sothamnus viscidiflorus</i>	<i>Astragalus drummondii</i>
<i>errezia sarothrae</i>	<i>Chenopodium album</i>
<i>hia tridentata</i>	<i>Astragalus purshii</i>
<i>aeranthra grindeloides</i>	<i>Sedum stenopetalum</i>
<i>perus scopulorum</i>	<i>Machaeranthera grindeloides</i>
<i>pyron smithii</i>	<i>Linum perenne</i>
<i>secunda</i>	<i>Compositae fam.</i>
<i>fendleriana</i>	<i>Allium cernuum</i>
<i>eria cristata</i>	<i>Orobanche fasciculata</i>
<i>x filifolia</i>	<i>Phlox multiflora</i>
<i>pyron spicatum</i>	<i>Haplopappus acaulis</i>
<i>ya comata</i>	<i>Penstemon spp.</i>
<i>is acuminatus</i>	<i>Hymenoxys acaulis</i>
<i>llaria vivipara</i>	<i>Tragopogon dubius</i>
<i>geron spp.</i>	<i>Veronica spp.</i>
<i>ox hoodii</i>	<i>Sphaeralcea coccinea</i>
<i>folium spp.</i>	<i>Lewisia rediviva</i>
<i>elina microcarpa</i>	<i>Crepis spp.</i>
<i>ragalus spatulatus</i>	<i>Antennaria dimorpha</i>
<i>elliferae fam.</i>	<i>Physaria australis</i>
<i>ntia polyacantha</i>	<i>Linum lewisii</i>
<i>geron pumilus</i>	<i>Cryptantha flavoculata</i>
<i>ochortus nuttallii</i>	<i>Lesquerella spp.</i>

Delphinium bicolor
Gaura coccinea
Castilleja spp.
Astragalus missouriensis
Draba spp.
Astragalus striatus
Linum lewisii
Gilia congesta
Ribes cereum
Chenopodium fremontii
Antennaria anaphaloides
Lesquerella ludoviciana
Chenopodium leptophyllum
Delphinium nelsonii
Stipa viridula

Arenaria nuttallii
Vicia americana
Helianthella uniflorus



OWL DRAW EXCLOSURE

Tran. #1
Arno-type
East Exposure

July 21, 1965

Tran. #2
Arno-type
East Exposure

INSIDE DEER Exclosure

OUTSIDE DEER Exclosure

	Cover % Ave.	Comp all Under.	Comp by Groups	% Freq.		Cover % Ave.	Comp all Under.	Comp by Groups	% Freq.
ARNO	13.10			80%	ARNO	6.50			60%
PUTR	1.15			15	JUOS	1.25			05
MAGR					ARTR	2.20			10
GUSA	.05			05	MAGR	.13			10
Shrub total	14.30				Shrub Total	10.08			
AGSM	1.50	22.54	38.97	50	AGSP	.20	3.03	4.47	20
AGSP	.60	9.02	15.58	40	AGSM	1.32	20.00	29.53	75
POSE	.98	14.74	25.45	60	POSE	1.60	24.24	35.80	75
KOCR	.17	2.56	4.42	15	POFE	.10	1.52	2.24	10
CAFI	.25	3.76	6.49	05	KOCR	.65	9.85	14.54	40
POFE	.15	2.26	3.90	10	CAFI				
STCO	.20	3.01	5.19	20	STCO	.60	9.09	13.42	40
Grass Total	3.85	57.89	100.00		Grass Total	4.47	67.73	100.00	
ARHO	1.00	15.05		30	ASMI2	.15	2.27	7.04	10
PHHO	.93	13.98		35	ARHO	.43	6.51	20.19	25
ASMI2	.08	1.20		10	PHHO	.80	12.13	37.55	40
ERPU	.47	7.07		15	DEBI	.30	4.55	14.08	25
TRDU	.08	1.20		10	UMB	.02	.30	.94	05
ASPU	.20	3.01		05	ERPU	.05	.76	2.35	05
TRI	.02	.30		05	SEST	.02	.30	.94	05
UMB	.02	.30		05	PEN	.05	.76	2.35	05
Forb Total	2.80	42.11	100.00		GACO	.02	.30	.94	05
					ALCE	.02	.30	.94	05
UNDERSTORY					CRE	.05	.76	2.35	05
TOTAL	6.65	100.00			TRI	.02	.30	.94	05
					CAS	.05	.76	2.35	05
					ASMI	.15	2.27	7.04	05
					Forb Total	2.13	32.27	100.00	
					UNDERSTORY				
					TOTAL	6.60	100.00		

OWL DRAW EXCLOSURE

July 21, 1965

Tran#3
Juos-Arnotype
Northeast Exposure

Tran #4
Juos-Arnotype
Northeast Exposure

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
JUSC	.25			05%	ARNO	6.15			40
ARNO	8.55			50	CHVI				
PUTR					PUTR	.30			05
JUOS	5.00			05	Shrub Total	6.45			
ARTR									
Shrub Total	13.80				AGSP	1.85	30.93	70.34	80
					POSE	.35	5.85	13.31	15
AGSM	.12	1.87	2.71	15	KOCR	.23	3.85	8.75	20
AGSP	1.78	27.70	40.18	70	AGSM	.05	.84	1.90	05
POSE	.98	15.24	22.12	70	POFE	.15	2.51	5.70	05
KOCR	.35	5.44	7.90	25	Grass Total	2.63	43.98	100.00	
CAFI	.35	5.44	7.90	10					
POFE	.85	13.21	19.19	20	HAAC	.10	1.67	2.99	05
Grass Total	4.43	68.90	100.00		ARHO	.80	13.38	23.88	25
					PHHO	1.05	17.56	31.34	20
ERPU	.02	.31	1.00	05	OPPO				
ARHO	.90	13.99	45.00	25	TRI	.05	.84	1.49	10
PHHO	.15	2.33	7.50	10	ASMI2	.60	10.03	17.91	35
TRI	.09	1.40	4.50	15	PHMU	.45	7.52	13.43	15
ASMI2	.05	.78	2.50	05	PHAU	.05	.84	1.49	05
PEN	.02	.31	1.00	05	CRE	.02	.33	.60	05
LES	.02	.31	1.00	05	ERPU	.15	2.51	4.48	10
PHAU	.05	.78	2.50	10	LES	.08	1.34	2.39	10
PHMU	.30	4.67	15.00	05	Forb Total	3.35	56.02	100.00	
HAAC	.40	6.22	20.00	10					
Forb Total	2.00	31.10	100.00		UNDERSTORY				
UNDERSTORY					TOTAL	5.98	100.00		
TOTAL	6.43	100.00							

OWL DRAW ENCLOSURE

July 27, 1965

Tran. #5
Inside Deer Enclosure
ARTR Type
North Exposure

Tran. #6
Inside Deer Enclosure
ARNO Type
North Exposure

INSIDE					OUTSIDE				
	Cover %	Comp. all	Comp. by	% Freq.		Cover %	Comp. all	Comp. by	% Freq.
	Ave.	Under.	Group			Ave.	Under.	Group.	
ARTR	1.70			20	ARNO	6.45			70
ARNO					CHVI	.10			05
CHVI					GUSA	.10			05
Shrub Total	1.70				Shrub Total	6.65			
AGSM	2.70	25.40	36.73	100	AGSP	2.60	25.85	54.16	85
POSE	2.95	27.75	40.13	100	AGSM	.50	4.98	10.42	30
POFE	1.70	15.99	23.14	65	POSE	.50	4.98	10.42	35
Grass Total	7.35	69.14	100.00		POFE	.70	6.97	14.58	35
PHHO	1.40	13.17	42.68	45	CAFI				
OPPO					STCO	.30	2.99	6.25	10
LERE	.10	.94	3.05	20	KOCR	.20	1.99	4.17	10
UNK	.08	.75	2.44	10	Grass Total	4.80	47.76	100.00	
MAVI					ARHO	2.80	27.86	53.36	70
CRE	.08	.75	2.44	15	PHHO	1.00	9.95	19.04	35
ANDI	1.60	15.06	48.78	15	COPA				
SPCO					ASSP	1.15	11.44	21.90	35
TRI	.02	.19	.61	05	MAGR	.18	1.79	3.42	20
Forb Total	3.28	30.86	100.00		TRDU	.05	.50	.95	05
UNDERSTORY					UMB	.07	.70	1.33	15
TOTAL	10.63	100.00			Forb Total	5.25	52.24	100.00	
					UNDERSTORY				
					TOTAL	10.05	100.00		

OWL DRAW ENCLOSURE

July 27, 1965

Tran. #8
Inside stock enclosure
ARNO type
North Exposure

Tran. #7
Outside stock enclosure
ARNO-JUOS type
North Exposure

INSIDE					OUTSIDE				
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARNO	8.68			70	ARNO	5.50			65
ARTR	.25			05	JUOS				
JUOS					CHVI	.25			05
GUSA	.55			10	GUSA	1.10			
CHVI					ARTR				
Shrub Total	9.48				Shrub Total	6.85			30
AGSP	2.10	28.07	55.56	90	AGSP	2.30	18.81	40.01	80
AGSM	.15	2.01	3.97	15	AGSM	.65	5.31	11.30	30
POSE	1.25	16.71	33.07	70	POSE	.90	7.36	15.65	40
POFE	.23	3.07	6.08	15	POFE	1.30	10.63	22.61	40
KOCA	.05	.67	1.32	05	KOCR	.60	4.91	10.43	35
CAFI					Grass Total	5.75	47.02	100.00	
Grass Total	3.78	50.53	100.00						
ASPU	.125	1.60	3.38	10	UMB	.08	.65	1.23	15
PHHO	2.50	33.42	67.55	45	HAAC	.65	5.31	10.03	15
ARHO	.30	4.01	8.11	35	ARHO	1.35	11.04	20.83	45
MAGR	.15	2.01	4.05	10	PHHO	1.30	10.63	20.06	60
ASMI2	.20	2.67	5.41	10	ASMI2	.78	6.38	12.04	60
ERI#2	.20	2.67	5.41	05	ALCE				
LIPE	.05	.67	1.35	05	CANA				
ASSP	.05	.67	1.35	05	LIPE	.15	1.23	2.31	25
COM#1	.05	.67	1.35	05	MAGR	.22	1.80	3.40	25
ALCE	.025	.36	.68	05	ASSP	.10	.82	1.54	10
UMB	.025	.36	.68	05	PHMU	1.60	13.07	24.70	20
TRI	.025	.36	.68	05	ORFA				
Fort Total	3.70	49.47	100.00		BASA				
UNDERSTORY					PEN	.20	1.64	3.09	05
TOTAL	7.48	100.00			HYAC	.05	.41	.77	05
					Forb Total	6.48	52.98	100.00	
					UNDERSTORY				
					TOTAL	12.23	100.00		

OWL DRAW ENCLOSURE

July 27, 1965

Tran. #9
Inside stock enclosure
ARTR type
Northwest exposure

Tran. #10
Outside stock enclosure
ARTR Type
Northwest Exposure

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
ARTR	14.25			45%	ARTR	21.25			25%
CHVI					JUOS				
Shrub Total	14.25				ARNO				
AGSP	.22	2.62	3.09	20	CHVI				
AGSM	1.38	16.43	19.35	95	Shrub Total	21.25			
POSE	1.55	18.45	21.74	80	POSE	1.85	17.02	25.34	80
POFE	3.98	47.38	55.82	75	POFE	3.40	31.28	46.58	85
KOCR					KOCR				
Grass Total	7.13	84.88	100.00		AGSM	2.05	18.86	28.08	100
UNK	.56	6.67	44.11	85	Grass Total	7.30	67.16	100.00	
TRI	.10	1.19	7.87	20	PHHO	2.90	26.68	81.24	75
CRAC	.02	.24	1.57	05	UNK	.38	3.50	10.64	75
BASA					TRI	.12	1.10	3.36	25
OPPO					ASSP	.02	.18	.56	05
UNK	.10	1.19	7.87	20	OPPO	.05	.46	1.40	05
ASDR	.02	.24	1.57	05	ERPU	.05	.46	1.40	05
PHHO	.40	4.76	31.50	50	UNK	.05	.46	1.40	10
CHAL	.02	.24	1.57	05	Forb Total	3.57	32.84	100.00	
ARHO	.05	.59	3.94	05					
Forb total	1.27	15.12	100.00		UNDERSTORY TOTAL				
UNDERSTORY						10.87	100.00		
TOTAL	8.40	100.00							

OWL DRAW ENCLOSURE

Aug. 8, 1966

Tran. #1
Arno Type
East Exposure

Tran. #2
Arno Type
East Exposure

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARNO	11.33			75%	ARNO	11.42			85%
PUTR	2.30			15	JUOS	.25			5
GUSA	.02			5	GUSA	.10			5
JUOS	.15			5	MAGR	.18			25
Shrub Total	13.80				Shrub Total	11.95			
AGSP	1.20	26.27	44.12	85	POFE	.05	1.35	2.27	5
POSE	.85	18.60	31.25	75	STCO	.05	1.35	2.27	10
STCO	.15	3.28	5.51	20	KOCR	.15	4.05	6.82	20
CAFI	.25	5.47	9.19	5	POSE	.70	18.92	31.82	75
KOCR	.22	4.81	8.09	30	AGSP	1.10	29.74	50.00	95
AGSM	.05	1.09	1.84	5	CAFI	.15	4.05	6.82	5
Grass' Total	2.72	59.52	100.00		Grass Total	2.20	59.46	100.00	
PHHO	.71	15.53	38.39	55	CRFL	.02	.54	1.33	5
CRAC	.10	2.19	5.41	20	ASPU	.08	2.16	5.33	15
ARHO	.42	9.19	22.70	40	UMB	.15	4.05	10.00	20
UMB	.08	1.75	4.32	15	PEN	.08	2.16	5.33	10
ERPU	.25	5.47	13.51	10	ARHO	.32	8.65	21.34	30
SEST	.02	.44	1.08	5	ERPU	.05	1.35	3.33	5
ASMI2	.10	2.19	5.41	10	PHHO	.54	14.60	36.02	40
TRDU	.08	1.75	4.32	15	COPA	.02	.54	1.33	5
PHAU	.02	.44	1.08	5	HAAC	.20	5.41	13.33	5
TRI	.02	.44	1.08	5	PHAU	.02	.54	1.33	5
MAVI	.05	1.09	2.70	5	CAMI	.02	.54	1.33	5
Forb Total	1.85	40.48	100.00		Forb Total	1.50	40.54	100.00	
UNDERSTORY					UNDERSTORY				
Total	4.57	100.00			Total	3.70	100.00		

OWL DRAW ENCLOSURE

August 8, 1966

Tran. #3
Juos-Arno Type
North East Exposure

Tran. #4
Arno-Juos Type
North East Exposure

INSIDE					OUTSIDE				
	Cover %	Comp. all	Comp. by	% Freq.		Cover %	Comp. all	Comp. by	% Freq.
	Ave.	Under.	Group			Ave.	Under.	Group	
ARNO	8.48			60	ARNO	5.00			40%
JUOS	5.20			10	JUOS	--			---
Shrub Total	13.68				PUTR	.15			5
					Shrub Total	5.15			
KOCR	.38	7.55	12.75	45					
AGSP	1.38	27.43	46.31	80	AGSP	.93	24.03	60.00	95
POSE	.52	10.34	17.45	45	KOCR	.12	3.10	7.74	20
POFE	.70	13.92	23.49	25	POSE	.35	9.04	22.58	20
Grass Total	2.98	59.24	100.00		POFE	.15	3.88	9.68	10
					Grass Total	1.55	40.05	100.00	
PEN	.05	.99	2.44	10					
PHHO	.59	11.75	28.76	35	PHMU	.25	6.46	10.78	15
PHAU	.08	1.59	3.91	15	ERPU	.05	1.29	2.16	5
LES	.02	.40	.98	5	ASMI2	.12	3.10	5.17	25
ERPU	--	---	---	--	PHAU	.02	.52	.86	5
PHMU	.32	6.36	15.61	10	PHHO	.82	21.18	35.34	50
ASSP	.05	.99	2.44	10	ASSP	.05	1.29	2.16	10
UNK	.02	.40	.98	5	MAGR	.02	.52	.86	5
TRI	.05	.99	2.44	10	ARHO	.39	10.08	16.81	25
HAAC	.30	5.96	14.63	10	CRAC	.02	.52	.86	5
ARHO	.50	9.94	24.39	20	LILE	.02	.52	.86	5
SEST	.02	.40	.98	5	ORFA	.02	.52	.86	5
CAMI	.05	.99	2.44	10	CRFL	.02	.52	.86	5
Forb Total	2.05	40.76	100.00		UMB	.05	1.29	2.16	10
					COPA	.02	.52	.86	5
UNDERSTORY					TRI	.05	1.29	2.16	10
TOTAL	5.03	100.00			UNK2	.10	2.58	4.31	5
					LES	.10	2.58	4.31	10
					HAAC	.20	5.17	8.62	5
					Forb Total	2.32	59.95	100.00	
					UNDERSTORY				
					TOTAL	3.87	100.00		

OWL DRAW ENCLOSURE

August 8, 1966

Tran. #5
Inside Deer Enclosure
ARTR Type
North Exposure

Tran. #6
Inside Deer Enclosure
ARNO Type
North Exposure

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
ARTR	1.58			30	ARNO	6.08			60
Shrub Total	1.58				ARTR	.10			5
					GUSA	.10			10
AGSM	1.20	16.39	23.53	95	Shrub Total	6.28			
POSE	2.20	30.06	43.14	95					
POFE	1.70	23.22	33.33	75	POFE	.32	4.43	9.64	10
Grass Total	5.10	69.67	100.00		AGSM	.52	7.20	15.66	50
					STCO	.08	1.11	2.41	15
PHHO	1.00	13.66	45.04	55	AGSP	1.28	17.73	38.56	65
VER	.15	2.05	6.76	30	POSE	1.12	15.51	33.73	55
CRAC	.15	2.05	6.76	30	Grass Total	3.32	45.98	100.00	
UNK2	.87	11.89	39.19	40					
SPCO	.05	.68	2.25	10	ARHO	2.25	31.16	57.69	65
Forb Total	2.22	30.33	100.00		PHHO	.70	9.70	17.95	30
					ASSP	.48	6.65	12.31	25
UNDERSTORY					ERPU	.28	3.88	7.18	25
TOTAL	7.32	100.00			UNK#1	.02	.28	.51	5
					UMB	.05	.69	1.28	10
					MAGR	.12	1.66	3.08	25
					Forb Total	3.90	54.02	100.00	
					UNDERSTORY				
					TOTAL	7.22	100.00		

OWL DRAW ENCLOSURE

August 9, 1966

Tran. #8
Inside stock Enclosure
ARNO Type
North Exposure

Tran. #7
Outside Stock Enclosure
ARNO-JUOS Type
North Exposure

Inside

Outside

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	.50			5%	ARNO	4.85			70%
ARNO	9.40			75	GUSA	.50			30
CHVI	.20			5	CHVI	.10			5
Shrub Total	10.10			5	Shrub Total	5.45			
KOCR	.02	.34	.56	5	KOCR	.25	3.92	14.53	40
AGSP	.98	16.90	27.37	65	POSE	.35	5.49	20.35	35
AGSM	.72	12.41	20.11	45	AGSP	1.07	16.81	62.21	95
POSE	1.28	22.07	35.76	85	POFE	.05	.78	2.91	5
POFE	.58	10.00	16.20	45	Grass Total	1.72	27.00	100.00	
Grass Total	3.58	61.72	100.00						
ERPU	.12	2.07	5.41	20	COPA	.05	.78	1.08	10
PHHO	1.38	23.82	62.17	50	ORFA	.02	.31	.43	5
COPA	.20	3.45	9.01	35	PHMU	2.31	36.30	49.68	20
ARHO	.30	5.18	13.51	35	CAMI	.02	.31	.43	5
ASPU	.02	.34	.90	5	PHHO	.62	9.73	13.33	55
ASMI2	.02	.34	.90	5	HAAC	.22	3.45	4.73	25
ASSP	.08	1.38	3.60	10	PEN	.12	1.88	2.58	10
SEST	.02	.34	.90	5	ARHO	.52	8.16	11.18	35
CRAC	.02	.34	.90	5	ERPU	.38	5.97	8.17	55
UMB	.02	.34	.90	5	ASMI2	.25	3.92	5.38	50
OPPO	.02	.34	.90	5	ASPU	.02	.31	.43	5
MAGR	.02	.34	.90		SEST	.02	.31	.43	5
Forb Total	2.22	38.28	100.00		ASSP	.10	1.57	2.15	15
					Forb Total	4.65	73.00	100.00	
UNDERSTORY					UNDERSTORY				
TOTAL	5.80	100.00			TOTAL	6.37	100.00		

OWL DRAW ENCLOSURE

August 9, 1966

Tran. #9
Inside Stock Enclosure
ARTR Type
Northwest Exposure

Tran. #10
Outside Stock Enclosure
ARTR Type
Northwest Exposure

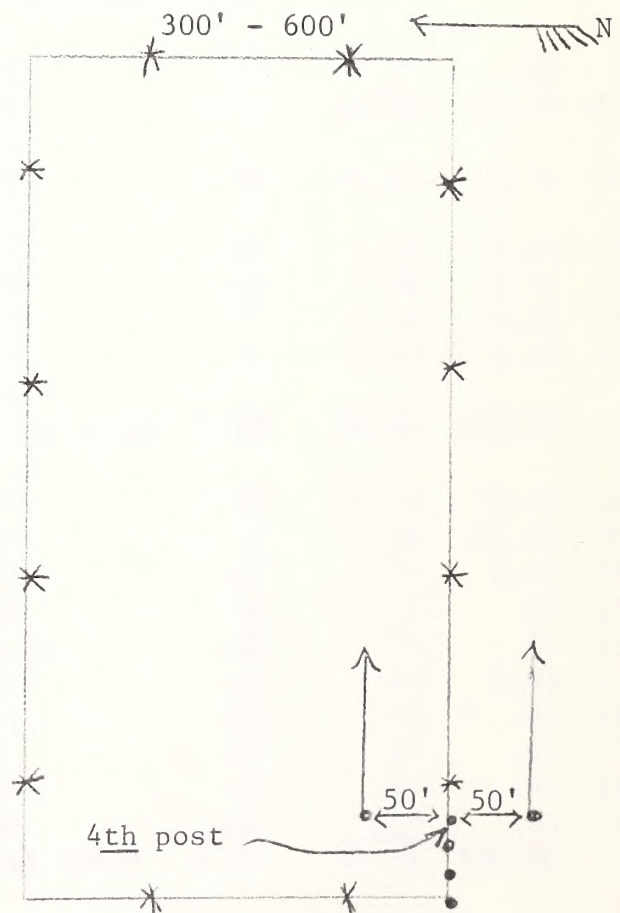
INSIDE

OUTSIDE

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	13.12			90	ARTR	3.65			50
Shrub Total	13.12				Shrub Total	3.65			
CAFI	.10	1.16	1.56	5	AGSM	1.18	18.10	28.09	100
POSE	2.08	24.13	32.40	85	POSE	1.74	26.69	41.43	95
AGSM	2.00	23.20	31.15	100	POFE	1.28	19.63	30.48	50
POFE	2.24	25.98	34.89	60	Grass Total	4.20	64.42	100.00	
Grass Total	6.42	74.47	100.00						
					CRAC	.02	.31	.86	5
CRAC	.15	1.74	6.82	30	MAVI	.05	.77	2.16	5
CAMI	.40	4.64	18.18	70	ERI #1	.08	1.23	3.45	15
CANU	.02	.23	.91	5	UNK #1	.05	.77	2.16	10
PHHO	1.26	14.63	57.28	65	PHHO	1.78	27.28	76.71	75
TRI	.18	2.09	8.18	35	TRI	.05	.77	2.16	10
ERI	.05	.58	2.27	10	CAMI	.12	1.84	5.17	25
UNK #1	.05	.58	2.27	10	ASSP	.05	.77	2.16	5
BASA	.02	.23	.91	5	UMB	.02	.31	.86	5
ASMI2	.02	.23	.91	5	UNK #2	.10	1.53	4.31	10
ARHO	.05	.58	2.27	5	Forb Total	2.32	35.58	100.00	
Forb Total	2.20	25.53	100.00						
Understory					Understory				
Total	8.62	100.00			Total	6.52	100.00		

POISON SPIDER EXCLOSURE

Number - 0105
 ty - Natrona
 1 Description - R83W T33N SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 5
 ation - 5800 ft.
 tation Type - Big sagebrush - Western wheatgrass
 e constructed - 1965
 tments - None
 ects Established - 1965 - Inside, Outside
 al Location - Go west of Gooseegg for .7 mile, turn right onto the main oil road and go west for 1.6 miles. Turn right onto another oil road for .5 mile. Cross the river and take the right fork on a main gravel road for 1.5 miles, take a right fork for 1.1 miles, take another right fork and continue north and west on improved gravel road for 3.4 miles to the oiled Poison Spider Road. Turn left and go by a school and continue for 9.7 miles, take a left fork for 1.5 miles, take a left fork, continuing west for 1.0 miles, exclosure is .2 mile south of the road.



s Observed During 1965-1966

isia tridentata	Phlox hoodii
ia lanata	Erigeron pumilus
othamnus viscidiflorus	Lepidium densiflorum
loua gracilis	Plantago patagonica
yron smithii	Sphaeralcea coccinea
ecunda	Chenopodium album
filifolia	Gilia leptomeria
eleocharis	Descurainia pinnata
ion hystrix	Trifolium spp.
comata	Allium textile
ria cristata	Lappula redowskii
ca octoflora	Plantago spinescens
s tectorum	Arabis hoboellii
ia polyacantha	

POISON SPIDER EXCLOSURE

July 20, 1965

INSIDE

OUTSIDE

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
EULA	.80			30	EULA	.15			5
ARTR	5.65			35	ARTR	12.17			55
Shrub Total	6.45				CHVI	.15			5
					Shrub Total	12.47			
AGSM	2.15	31.75	45.74	100					
POSE	2.10	31.02	44.68	95	BRTE	.02	.15	.38	5
CAEL					AGSM	2.05	15.25	39.43	100
FEOC	.10	1.48	2.13	20	BOGR				
KOCR	.28	4.14	5.96	15	POSE	1.68	12.49	32.31	80
STCO	.07	1.03	1.49	10	CAFI				
BRTE					CAEL	.20	1.48	3.85	30
Grass Total	4.70	69.42	100.00		SIHY	.10	.74	1.92	5
					STCO	.75	5.58	14.42	55
PLPA	1.10	16.23	53.12	90	KOCR	.40	2.97	7.69	15
PHHO	.25	3.69	12.08	20	FEOC				
CHAL	.15	2.22	7.25	30	Grass Total	5.20	38.66	100.00	
GILE	.15	2.22	7.25	25					
OPPO	.15	2.22	7.25	5	OPPO	6.50	48.35	78.80	20
ALTE	.02	.30	.97	5	PHHO	1.02	7.58	12.36	35
ERPU	.05	.74	2.42	5	PLPA	.28	2.08	3.39	40
SPCO	.02	.30	.97	5	GILE	.08	.59	.97	15
UNK #2	.08	1.18	3.86	15	UNK #2	.08	.59	.97	15
LARE	.10	1.48	4.83	5	CHAL	.12	.89	1.45	25
Forb Total	2.07	30.58	100.00		DEPI	.05	.37	.61	10
					TRI	.02	.15	.24	5
Understory					SPCO	.08	.59	.97	10
Total	6.77	100.00			LARE	.02	.15	.24	5
					Forb Total	8.25	61.34	100.00	
					Understory				
					Total	13.45	100.00		

POISON SPIDER EXCLOSURE

August 22, 1966

INSIDE

OUTSIDE

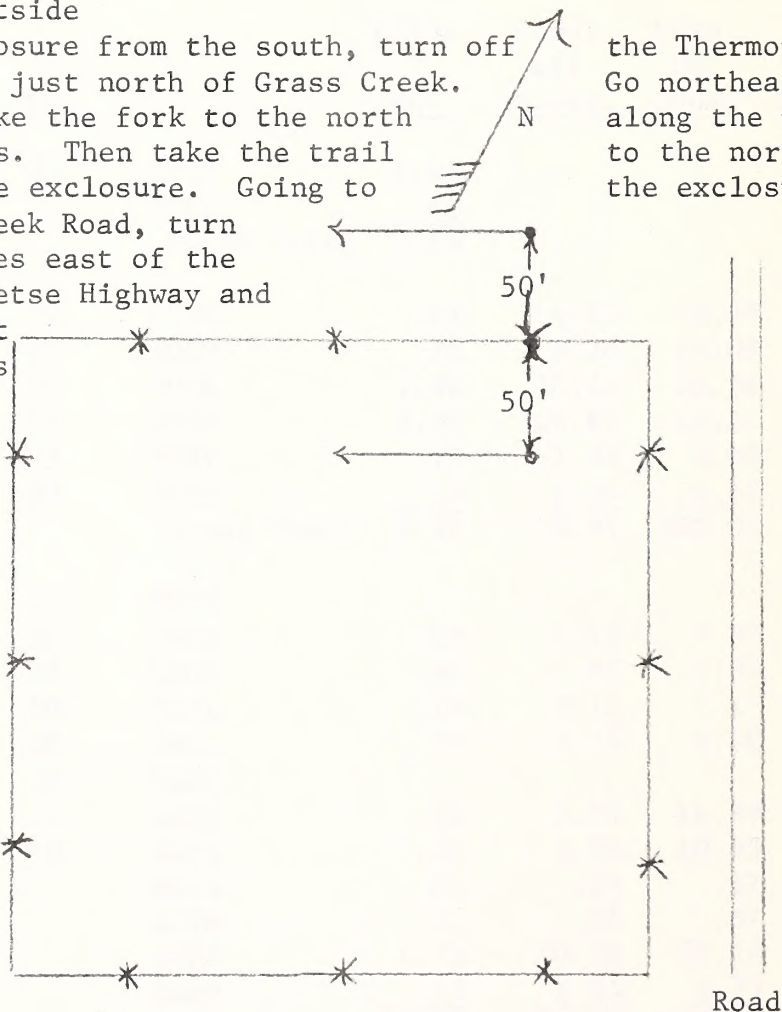
	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	6.00			45	ARTR	7.20			45
EULA	.65			25	EULA	.05			5
Shrub Total	6.65				CHVI	.05			5
					Shrub Total	7.30			
AGSM	1.88	35.47	43.92	100	BOGR				
POSE	2.11	39.82	49.31	95	AGSM	1.17	12.14	34.21	100
CAEL					POSE	1.12	11.62	32.75	65
KOCR	.12	2.26	2.80	15	CAFI				
STCO					CAEL	.08	.83	2.34	15
SIHY	.05	.94	1.17	5	SIHY	.08	.83	2.34	10
FEOC	.12	2.26	2.80	25	STCO	.70	7.26	20.47	65
BRTE					KOCR	.25	2.59	7.31	10
Grass Total	4.28	80.75	100.00		FEOC	.02	.21	.58	5
					BRTE				
PLPA	.60	11.33	58.82	95	Grass Total	3.42	35.48	100.00	
PHHO	.20	3.77	19.61	20					
OPPO	.15	2.83	14.71	5	OPPO	5.00	51.86	80.38	20
SPCO					PHHO	1.00	10.37	16.08	40
CHAL	.02	.38	1.96	5	ERPU	.02	.21	.32	5
ERPU	.05	.94	4.90	10	LEDE	.02	.21	.32	5
Forb Total	1.02	19.25	100.00		PLPA	.10	1.04	1.61	20
					SPCO	.08	.83	1.29	10
Understory					Forb Total	6.22	64.52	100.00	
Total	5.30								
					Understory				
					Total	9.64	100.00		

RANKIN BASIN EXCLOSURE

Number - 1507
 ty - Hot Springs
 1 Description - R97W T46N
 ation -
 ation Type - Big sagebrush - Grass
 e Constructed - 1965
 tments - None
 ects Established - 1965 - Inside, Outside
 al Location -

Going to the exclosure from the south, turn off Meeteetse Highway just north of Grass Creek. .2 mile. Then take the fork to the north line for 4.6 miles. Then take the trail for .8 mile to the exclosure. Going to the Gooseberry Creek Road, turn south about 3 miles east of the Thermopolis-Meeteetse Highway and about 4 miles west of the Hot Springs - Washakie County lines and travel south for 2 miles to the exclosure.

the Thermopolis-Go northeast for along the power to the northwest the exclosure from



ts Observed During 1965-1966

nisia tridentata	Plantago patagonica
tia lanata	Machaeranthare tanacetifolia
secunda	Allium textile
pyron smithii	Leptodactylon pungens
nion hystrix	Chenopodium album
eloua gracilis	Lepidium densiflorum
a comata	Sphaeralcea coccinea
eria cristata	Erigeron pumilus
opsis hymenoides	Phlox hoodii
tia polyacantha	Descurainia pinnata
vula redowskii	Monolepis nuttalliana

RANKIN BASIN EXCLOSURE

June 23, 1965

INSIDE

OUTSIDE

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	13.05			30	ARTR	4.65			10
EULA	.30				EULA	.45			15
Shrub Total	13.35				Shrub Total	5.10			
SIHY	.65	5.48	9.60	45	SIHY	.42	4.97	8.45	30
AGSM	.48	4.04	7.09	55	AGSM	.70	8.28	14.08	80
POSE	1.72	14.50	25.41	55	POSE	1.32	15.62	26.56	50
BOGR	3.45	29.06	50.95	60	BOGR	2.25	26.62	45.27	60
ORHY	.10	.84	1.48	5	ORHY	.15	1.78	3.02	5
STCO	.37	3.12	5.47	30	STCO	.13	1.54	2.62	10
Grass Total	6.77	57.04	100.00		Grass Total	4.97	58.81	100.00	
OPPO	4.10	34.54	80.39	15	ERPU				
ALTE	.05	.42	.98	10	SPCO	.10	1.18	2.87	15
LARE	.38	3.20	7.46	75	LEDE	.08	.95	2.30	15
PLPA	.25	2.11	4.90	50	PLPA	.18	2.13	5.17	35
CHAL	.10	.84	1.96	20	CHAL	.32	3.79	9.20	60
LEDE	.15	1.26	2.94	30	PHHO				
SPCO	.02	.17	.39	5	LARE	.50	5.92	14.37	85
UNK	.05	.42	.98	10	DEPI	.38	4.50	10.93	70
Forb Total	5.10	42.96	100.00		MATA	.02	.24	.57	5
Understory					ALTE	.02	.24	.57	5
Total	11.87	100.00			OPPO	1.75	20.70	50.29	15
					MONU	.13	1.54	3.73	25
					Forb Total	3.48	41.19	100.00	
					Understory				
					Total	8.45	100.00		

RANKIN BASIN EXCLOSURE

June 24, 1966

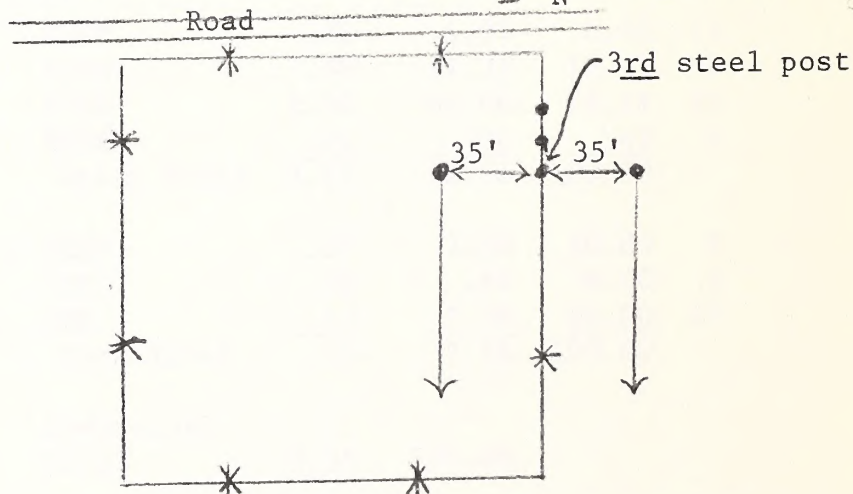
INSIDE

OUTSIDE

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	11.50			25	ARTR	6.20			25
EULA	.20			5	EULA	.05			5
Shrub Total	11.70				Shrub Total	6.25			
POSE	1.10	9.28	16.06	75	AGSM	1.02	10.37	16.14	85
AGSM	.92	7.76	13.43	55	SIHY	.18	1.83	2.85	15
SIHY	1.05	8.86	15.33	45	BOGR	3.80	38.61	60.13	75
BOGR	2.93	24.73	42.77	60	POSE	1.27	12.91	20.09	45
STCO	.75	6.33	10.95	25	STCO	.05	.51	.79	10
KOCR	.02	.17	.29	5	Grass Total	6.32	64.23	100.00	
ORHY	.08	.68	1.17	10	LARE	.30	3.05	8.52	55
Grass Total	6.85	57.81	100.00		PLPA	.20	2.03	5.68	40
OPPO	4.76	40.17	95.20	15	LEPU	.02	.20	.57	5
LARE	.05	.42	1.00	10	OPPO	2.69	27.35	76.42	25
PLPA	.10	.84	2.00	20	MATA	.02	.20	.57	5
MATA	.05	.42	1.00	10	CHAL	.15	1.52	4.26	25
ALTE	.02	.17	.40	5	LEDE	.05	.51	1.42	10
LEPU	.02	.17	.40	5	SPCO	.05	.51	1.42	10
Forb Total	5.00	42.19	100.00		UNK #1	.02	.20	.57	5
Understory					UNK #2	.02	.20	.57	5
Total	11.85	100.00			Forb Total	3.52	35.77	100.00	
					Understory				
					Total	9.84	100.00		

SOUTH BUTTE EXCLOSURE

- Number - 2015
 County - Washakie
 Legal Description - R89W T44N SE SW Sec. 7
 Elevation - 5100 ft.
 Vegetation Type - Big sagebrush - Grass
 Fence Constructed - 1966
 Treatments - Spray 1966
 Insects Established - 1966 - Inside Spray, Outside Spray
 General Location - From the outskirts of Worland travel 11.0 miles east toward Tensleep, turn right and go south for .7 mile to the old highway, turn left onto old highway and travel east for 6.0 miles and turn right onto the Bluebank Road and travel south (the Bluebank Road passes Bud Kimball Exclosure at 7.3 miles from the old highway) for 17.7 miles (10.4 miles south of Bud Kimball Exclosure) and turn right to west and drive by an old cabin and corrals and in 2.9 miles road parallels new fence, continue westward for 1.8 miles and exclosure is on right side of road.



Insects Observed During 1966

Emisia tridentata
Pterozia sarothrae
Pyron spicatum
Pyron smithii
secunda
mus tectorum
anion hystrix
leria cristata
ox hoodii
ntia polyacantha
pis acuminatus

SOUTH BUTTE

August 3, 1966

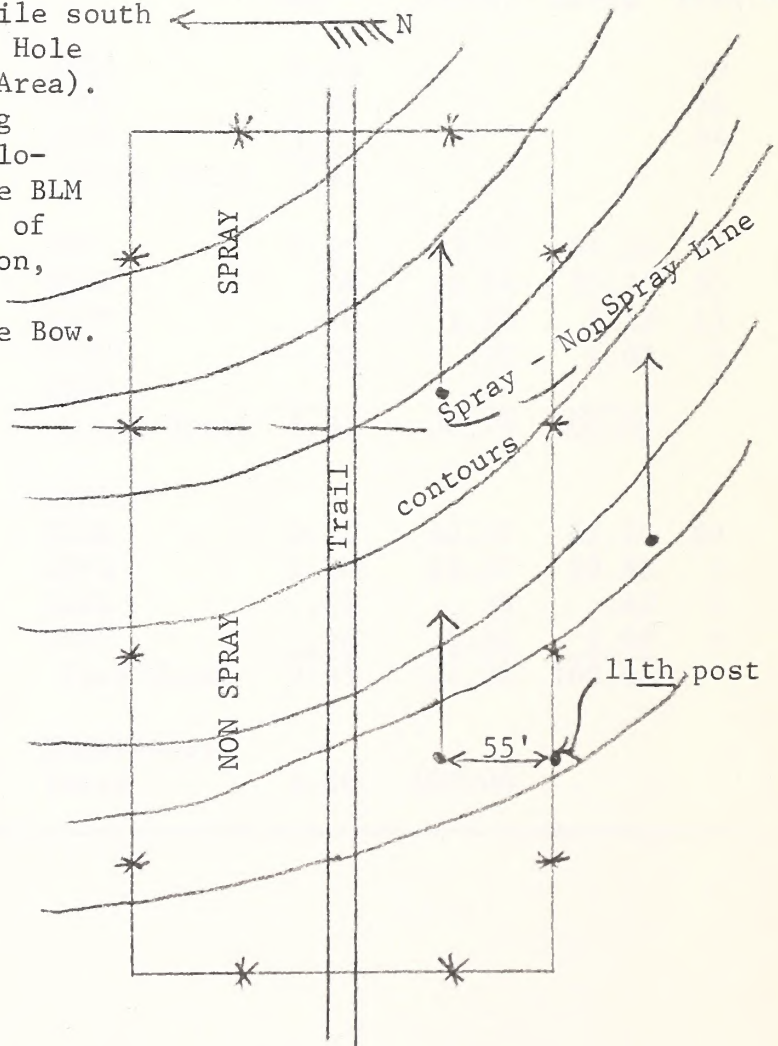
INSIDE SPRAY

OUTSIDE SPRAY

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	<u>18.78</u>			85	ARTR	18.30			75
Shrub Total	18.78				GUSA	<u>.15</u>			5
					Shrub Total	18.45			
SIHY	.08	1.70	1.71	15	AGSP	.20	5.97	6.45	15
AGSP	.10	2.13	2.14	20	AGSM	.58	17.31	18.71	90
AGSM	.55	11.70	11.75	90	POSE	2.30	68.66	74.19	95
POSE	3.95	84.04	84.40	90	BRTE	<u>.02</u>	<u>.60</u>	<u>.65</u>	5
KOCR					Grass Total	3.10	92.54	100.00	
Grass Total	<u>4.68</u>	<u>99.57</u>	<u>100.00</u>						
CRAC	<u>.02</u>	<u>.43</u>	<u>100.00</u>	5	PHHO	.10	2.98	40.00	5
Forb Total	.02	.43	100.00		OPPO	.02	.60	8.00	5
					UNK	<u>.13</u>	<u>3.88</u>	<u>52.00</u>	25
Understory					Forb Total	.25	7.46	100.00	
Total	4.70	100.00			Understory				
					Total	3.35	100.00		

STINKING CREEK EXCLOSURE

- de Number - 0106
- County - Natrona
- Legal Description - R80W T30N NW Sec. 7
- Elevation - 5800 ft.
- Vegetation Type - Sagebrush Grass
- When Constructed - July 1965
- Treatments - Contoured 1958, Sprayed June 10, 1965
- Insects Established - 1965 - Inside Spray Furrow, Inside NonSpray Furrow, Outside NonSpray Furrow
- General Location - At the junction of highway 487 (Medicine Bow Cutoff) and Highway 220, go west for 2.6 miles and turn south for 4.0 miles, turn left onto trail for .4 mile, cross bridge and go south for 4.1 miles and continue south for .3 mile on the Stinking Creek Road. Turn left for .2 mile to the enclosure. Can also get to the Stinking Creek Exclosure by turning off Highway 487 about .2 mile south of the BLM sign (Bates Hole Resource Conservation Area). From this turnoff going northwestward, the exclosure is 4.3 miles. The BLM sign is 16 miles south of Highway 487-220 junction, and approximately 55 miles north of Medicine Bow.



Insects Observed During 1965-1966

<i>Emisia spinescens</i>	<i>Stipa comata</i>
<i>Chaeranthra glabriuscula</i>	<i>Oryzopsis hymenoides</i>
<i>Emisia tridentata</i>	<i>Atriplex argentea</i>
<i>Atriplex nuttallii</i>	<i>Phlox hoodii</i>
<i>Emisia pedatifida</i>	<i>Lesquerella</i> spp.
<i>Opopyron smithii</i>	<i>Lappula redowski</i>
<i>Opopyron cristatum</i>	<i>Lappula texana</i>
<i>Opopyron</i> spp.	<i>Arenaria hookeri</i>
<i>Sanion hystrix</i>	<i>Descurainia pinnata</i>
<i>Opuntia tectorum</i>	<i>Opuntia polyacantha</i>
<i>Salsola secunda</i>	<i>Salsola kali</i>

STINKING CREEK EXCLOSURE

July 20, 1965

Inside Non-spray
Contour FurrowedOutside Non-spray
Contour Furrowed

INSIDE

OUTSIDE

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	12.25			55	ARTR	2.35			20
ATNU					MAGL	3.65			70
MAGL	.40			25	ATNU	1.45			25
Shrub Total	12.65				Shrub Total	7.45			
AGR	.85	14.45	38.64	80	AGR	1.25	23.58	64.10	95
POSE	1.02	17.35	46.36	50	POSE	.58	10.94	29.74	35
SIHY	.13	2.21	5.90	15	SIHY	.10	1.89	5.13	15
ORHY	.10	1.70	4.55	5	STCO	.02	.38	1.03	5
STCO	.10	1.70	4.55	5	ORHY				
Grass Total	2.20	37.41	100.00		Grass Total	1.95	36.79	100.00	
OPPO	.30	5.10	8.15	10	ATAR				
PHHO	3.15	53.58	85.60	80	PHHO	2.23	42.07	66.56	60
SAKA	.18	3.06	4.89	30	OPPO	1.00	18.87	29.85	5
LATE	.05	.85	1.36	10	SAKA	.02	.38	.60	5
Forb Total	3.68	62.59	100.00		ARHO	.10	1.89	2.99	5
					Forb Total	3.35	63.21	100.00	
Understory Total	5.88	100.00			Understory Total	5.30	100.00		

STINKING CREEK EXCLOSURE

July 20, 1965

Contour Furrowed

INSIDE SPRAY

	Cover % Average	Comp. all Under.	Comp. by Group	Percent Frequency
ARTR	.20			05%
MAGL	.95			45
ATNU	.70			15
ARSP	.05			05
Shrub Total	1.90			
AGR	.50	13.82	33.33	50
POSE	.73	20.17	48.67	45
SIHY	.25	6.90	16.67	20
ORHY	.02	.55	1.33	05
Grass Total	1.50	41.44	100.00	
PHHO	2.12	58.56	100.00	70
Forb Total	2.12	58.56	100.00	
UNDERSTORY TOTAL	3.62	100.00		

STINKING CREEK EXCLOSURE

June 27, 1966

Inside Non-spray
Contour FurrowOutside Non-spray
Contour Furrow

INSIDE

OUTSIDE

	Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Avg.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	10.15			60	ARSP				
ATNU					MAGL	1.60			60
MAGL	.10			20	ARTR	2.30			30
ARPE					ATNU	1.25			30
Shrub Total	10.25				Shrub Total	5.15			
AGCR	.42	5.08	10.29	45	AGSM	.90	13.92	36.74	60
AGSM	.88	10.65	21.57	55	AGCR	.85	13.14	34.69	30
POSE	1.93	23.37	47.31	55	AGR				
SIHY	.38	4.60	9.31	30	SIHY	.05	.77	2.04	10
STCO	.05	.61	1.23	5	BRTE	.05	.77	2.04	10
ORHY	.20	2.42	4.90	10	POSE	.60	9.27	24.49	60
BRTE	.22	2.66	5.39	10	Grass Total	2.45	37.87	100.00	
Grass Total	4.08	49.39	100.00		ATAR	.02	.31	.50	5
PHHO	3.68	44.56	88.04	85	PHHO	2.95	45.59	73.38	90
OPPO	.22	2.66	5.26	10	LES	.10	1.55	2.49	20
LARE	.28	3.39	6.70	35	LARE	.27	4.17	6.72	50
DEPI					ARHO				
Forb Total	4.18	50.61	100.00		DEPI	.08	1.24	1.99	15
Understory					OPPO	.60	9.27	14.92	5
Total	8.26	100.00			Forb Total	4.02	62.13	100.00	
					Understory				
					Total	6.47	100.00		

STINKING CREEK ENCLOSURE

June 27, 1966

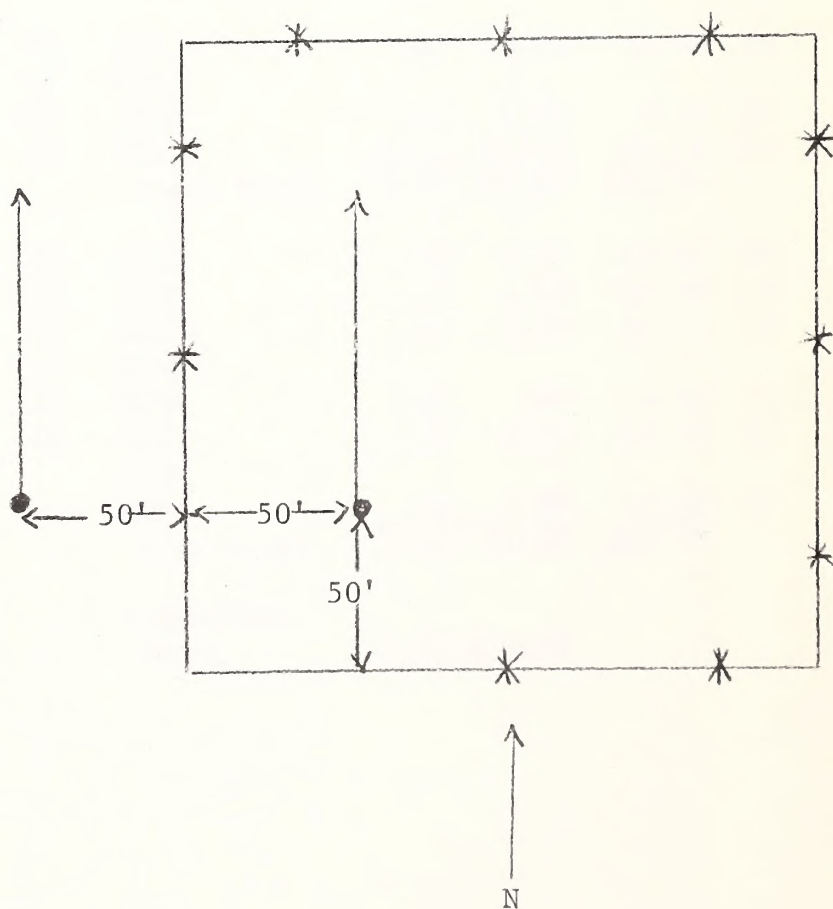
Contour furrow

INSIDE SPRAY

	Cover % Average	Comp. all Under.	Comp. by Group	Percentage Frequency
XAGSM	.22	5.53	6.32	25%
XAGCR	.70	17.59	20.11	40
XPOSE	2.06	51.76	59.20	70
XAGR				
XSIHY	.32	8.04	9.20	35
XBRTE	.18	4.52	5.17	30
XORHY				
Grass Total	<u>3.48</u>	<u>87.44</u>	<u>100.00</u>	
XLARE	.28	7.04	56.00	45
XATAR	.02	.50	4.00	5
XDEPI				
XPHHO	.20	5.02	40.00	5
Forb Total	<u>.50</u>	<u>12.56</u>	<u>100.00</u>	
UNDERSTORY TOTAL	3.98	100.00		

UPPER ENOS CREEK ENCLOSURE

- Site Number - 1508
- County - Hot Springs
- Legal Description - R100W T46N NE SW NE Sec. 31
- Elevation - 6900 ft.
- Vegetation Type - Big sagebrush - Grass
- Enclosure Constructed - 1966
- Treatments - Spray 1964
- Insects Established - 1965 - Inside Spray, Outside Spray
- General Location - From Town of Grass Creek travel about 4 miles westward on the Dickey Road to the junction of the Grass Creek Road, follow Dickey Road for 2.1 miles to junction with Enos Creek Road, turn left and travel southwest for .6 mile and take right fork, continue for .2 mile and cross Enos Creek, continue southwest for 5.6 miles to LU Juniper study area, continue on Enos Creek Road for 2.3 miles to enclosure.



Insects Observed During 1965-1966

<i>Hesperus scopulorum</i>	<i>Antennaria rosea</i>
<i>Emisia tridentata</i>	<i>Achillea lanulosa</i>
<i>Alpa viridula</i>	<i>Cerastium arvense</i>
<i>Protophyron smithii</i>	<i>Androsace occidentalis</i>
<i>Stuca idahoensis</i>	<i>Taraxacum officinale</i>
<i>Eleria cristata</i>	<i>Potentilla gracilis</i>
<i>Protophyron</i> spp.	<i>Iris missouriensis</i>
<i>Alpa</i> spp.	<i>Arabis holboellii</i>
<i>Prostis scabra</i>	<i>Arnica fulgens</i>
<i>Phlox</i> spp.	<i>Phlox hoodii</i>
<i>Protophyron</i> spp.	

UPPER ENOS CREEK EXCLOSURE

August 12, 1965
Spray

July 12, 1965
Spray

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
JUSC	3.75			05%	JUSC	5.0			05%
ARTR (Dead)	42.40			90	ARTR (dead)	37.45			90
ARTR	.05			10	ARTR	.17			15
Shrub Total	46.20				Shrub total	42.62			
AGR	1.28	13.59	19.10	95	AGR	.80	10.06	11.64	90
CAR	.10	1.06	1.49	15	CAR				
UNK	5.30	56.27	79.11	100	FEID	.15	1.89	2.18	05
FEID	.02	.21	.30	05	UNK	5.92	74.47	86.18	100
Grass Total	6.70	71.13	100.00		Grass Total	6.87	86.42	100.00	
ACLA	.40	4.25	14.71	45	ACLA	.28	3.52	25.92	25
ARFU	.18	1.91	6.62	35	ARFU	.15	1.88	13.89	25
CEAR	1.05	11.15	38.60	35	ARHO2	.25	3.14	23.15	25
ANRO	.77	8.17	28.31	15	CEAR				
ARHO2	.20	2.12	7.35	30	TAOF	.05	.63	4.63	05
TAOF	.12	1.27	4.41	10	ANRO	.20	2.52	18.52	20
Forb Total	2.72	28.87	100.00		POGR				
					PHHO	.15	1.89	13.89	05
UNDERSTORY					Forb Total	1.08	13.58	100.00	
TOTAL	9.42	100.00			UNDERSTORY				
					TOTAL	7.95	100.00		

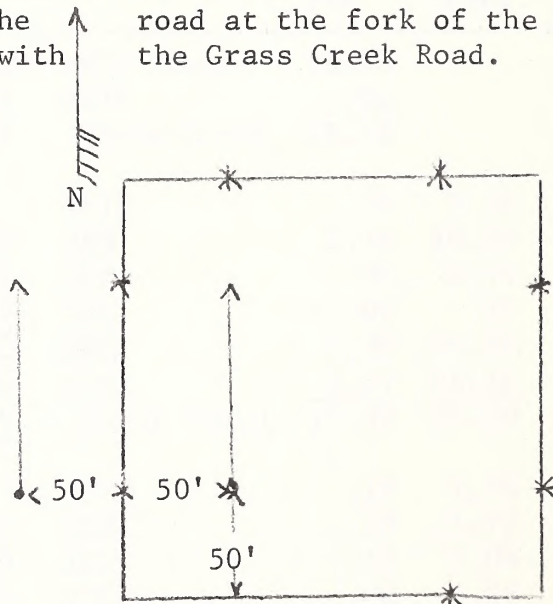
UPPER ENOS CREEK EXCLOSURE

July 26, 1966

Spray					Spray				
INSIDE					OUTSIDE				
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
JUSC	3.75			5%	JUSC	5.00			5%
ARTR	.10			15	ARTR	.45			35
Shrub Total	3.85				Shrub Total	5.45			
STVI	.08	1.50	2.06	15	AGSM	.35	4.93	5.78	55
AGSM	.70	13.13	18.04	95	KOCR	3.51	49.44	58.03	85
FEID	.05	.94	1.29	5	STVI				
KOCR	1.32	24.76	34.02	85	AGR	.70	9.86	11.57	90
AGR	.08	1.50	2.06	15	POA	1.35	19.01	22.31	50
POA	1.63	30.58	42.01	100	FEID	.10	1.41	1.65	5
AGSC					CAR	.02	.28	.33	5
CAR	.02	.38	.52	5	UNK #1	.02	.28	.33	5
Grass Total	3.88	72.79	100.00		Grass Total	6.05	85.21	100.00	
ERI	.02	.38	1.38	5	ACLA	.28	3.94	26.67	45
ANRO	.20	3.75	13.79	15	ANRO	.20	2.82	19.05	10
ACLA	.51	9.57	35.17	45	TAOF	.10	1.41	9.52	20
CEAR	.15	2.81	10.34	25	POGR	.02	.28	1.90	5
ANDC	.42	7.88	28.97	60	ARHO2	.10	1.41	9.52	5
TAOF	.08	1.50	5.52	15	ANDC	.30	4.23	28.58	55
POGR	.05	.94	3.45	10	ERI	.05	.70	4.76	10
TRMI	.02	.38	1.38	5	Forb Total	1.05	14.79	100.00	
Forb Total	1.45	27.21	100.00						
UNDERSTORY					UNDERSTORY				
TOTAL	5.33	100.00			TOTAL	7.10	100.00		

UPPER GRASS CREEK EXCLOSURE

Number - 1509
 County - Hot Springs
 Legal Description - R101W T45N SW NE SE Sec. 14
 Elevation - 7250 ft.
 Vegetation Type - Big Sagebrush - Grass
 Date Constructed - 1966
 Treatments - Spray 1963
 Insects Established - 1965 - Inside Sprayed, Outside Sprayed
 General Location - Travel from Grass Creek westward about 4 miles to the junction of the Grass Creek Road and the Dickey Road. Go southwestward for 5 miles on the Grass Creek Road and take the right fork following Grass Creek. At 5.2 miles the road passes the LU Cow Camp. Continue westward for .5 mile to another corral, continue westward for 2.9 miles. The exclosure is about 100 yards above the road at the fork of the Raspberry and Cottonwood Creek roads with the Grass Creek Road.



Plants Observed During 1965-1966

<i>Emisia tridentata</i>	<i>Campanula rotundifolia</i>
<i>Emisia frigida</i>	<i>Oxytropis sericea</i>
<i>Lupinus scopulorum</i>	<i>Lupinus</i> spp.
<i>Erigeron flexilis</i>	<i>Potentilla</i> spp.
<i>Erigeron comata</i>	<i>Arenaria hookeri</i>
<i>Erigeron</i> spp.	<i>Vicia americana</i>
<i>Taraxacum idahoensis</i>	<i>Taraxacum officinale</i>
<i>Achillea cristata</i>	<i>Achillea lanulosa</i>
<i>Agoseris kingii</i>	<i>Agoseris glauca</i>
<i>Cerastium fendleriana</i>	<i>Cerastium arvense</i>
<i>Erigeron secunda</i>	<i>Erigeron pumilus</i>
<i>Pinus</i> spp.	<i>Pinus flexilis</i>
<i>Chrysothamnus</i> spp.	<i>Chrysothamnus viscidiflorus</i>
<i>Artemisia exarata</i>	
<i>Artemisia hoodii</i>	
<i>Artemisia occidentalis</i>	
<i>Artemisia rosea</i>	
<i>Artemisia drummondii</i>	

UPPER GRASS CREEK EXCLOSURE

August 28, 1965

Spray					Spray				
INSIDE					OUTSIDE				
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR (dead)	16.15			70%	ARTR (dead)	21.10			70%
ARTR	.02			05	ARTR	.02			05
ARFR	.20			45	Shrub Total	21.12			
Shrub Total	16.37								
FEID	.90	6.77	9.36	45	FEID	.25	2.16	2.42	10
AGR	1.25	9.40	12.99	85	AGR	1.18	10.20	11.43	90
HEKI	.47	3.53	4.89	35	HEKI	.30	2.59	2.91	05
CAL	.32	2.41	3.33	40	CAL	.02	.17	.19	05
UNK	4.58	34.43	47.60	100	UNK	5.30	45.82	51.36	95
KOCR	2.10	15.79	21.83	75	KOCR	3.27	28.26	31.69	95
Grass Total	9.62	72.33	100.00		Grass Total	10.32	89.20	100.00	
ANRO	.45	3.38	12.23	30	ANRO	.18	1.56	14.40	25
OXSE	.43	3.23	11.68	50	OXSE	.20	1.72	16.00	30
LUP	1.12	8.43	30.45	30	LUP	.12	1.04	9.60	15
PHHO	.45	3.38	12.23	30	PHHO	.08	.69	6.40	10
POT	.28	2.11	7.61	35	POT	.12	1.04	9.60	15
TAOF	.35	2.63	9.51	30	TAOF	.20	1.73	16.00	20
ARHO	.08	.60	2.17	15	ARHO	.12	1.04	9.60	25
VIAM	.02	.15	.54	05	VIAM	.05	.43	4.00	10
PIFL	.50	3.76	13.58	05	UNK	.03	.26	2.40	05
Forb Total	3.68	27.67	100.00		ACLA	.05	.43	4.00	05
UNDERSTORY					CHVI				
TOTAL	13.30	100.00			LYDR	.05	.43	4.00	10
					AGGL	.05	.43	4.00	10
					Forb Total	1.25	10.80	100.00	
					UNDERSTORY				
					TOTAL	11.57	100.00		

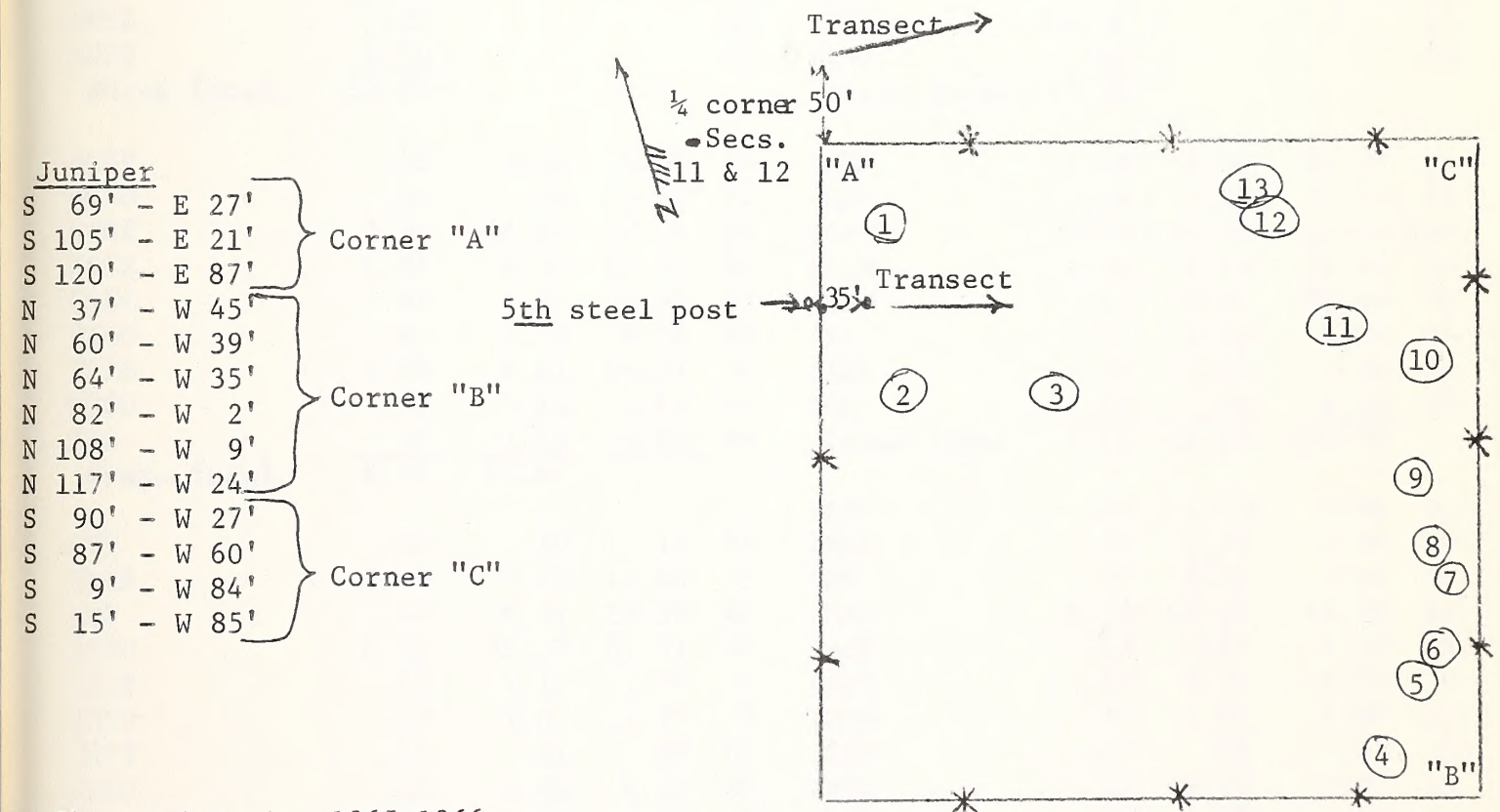
UPPER GRASS CREEK EXCLOSURE

August 23, 1966

Spray					Spray				
INSIDE					OUTSIDE				
	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	.02			5%	ARTR	.10			15%
ARFR	.23			15	ARFR	.05			5
JUSC					Shrub Total	.15			
PIFL	1.50			5					
Shrub Total	1.75				CAR	.22	2.21	2.74	40
					FEID				
STCO	.25	2.29	3.16	10	KOCR	1.55	15.55	19.33	95
CAR	.82	7.52	10.38	45	HEKI	.30	3.01	3.74	10
FEID	.55	5.05	6.96	30	POFE	2.76	27.67	34.42	80
KOCR	1.68	15.43	21.27	100	POSE	1.55	15.55	19.33	70
HEKI	.48	4.40	6.08	40	AGR	1.10	11.03	13.71	90
POFE	.82	7.52	10.38	45	CAL	.22	2.21	2.74	25
POSE	1.50	13.76	18.99	80	AGEX	.22	2.21	2.74	15
AGR	1.20	11.01	15.19	95	STCO	.10	1.00	1.25	5
CAL	.52	4.77	6.58	75	Grass Total	8.02	80.44	100.00	
AGEX	.08	.73	1.01	10					
Grass Total	7.90	72.48	100.00		ACLA	.05	.50	2.56	5
					PHHO	.31	3.11	15.90	25
PHHO	.40	3.67	13.33	25	ANOC	.28	2.81	14.36	55
ANOC	.48	4.40	16.00	95	ANRO	.25	2.51	12.82	25
ANRO	.60	5.50	20.00	35	LYDR	.12	1.20	6.15	25
LYDR					CARO				
CARO					OXSE	.31	3.12	15.90	40
OXSE	.32	2.94	10.67	40	LUP	.22	2.21	11.28	40
LUP	.75	6.89	25.00	40	POT	.08	.80	4.10	15
POT	.25	2.29	8.33	40	ARHO	.08	.80	4.10	15
ARHO					VIAM	.02	.20	1.03	5
VIAM	.08	.73	2.67	15	TAOF	.12	1.20	6.15	25
TAOF	.10	.92	3.33	20	AGGL	.02	.20	1.03	5
UNK	.02	.18	.67	5	CEAR	.05	.50	2.56	5
Forb Total	3.00	27.52	100.00		ERPU	.02	.20	1.03	5
					UNK	.02	.20	1.03	5
UNDERSTORY TOTAL					Forb Total	1.95	19.56	100.00	
	10.90	100.00							
					UNDERSTORY TOTAL	9.97	100.00		

UPPER LEFT HAND CREEK EXCLOSURE

e Number - 1510
 nty - Hot Springs
 al Description - R100W T46N NW SW Sec. 12
 vation - 6180 ft.
 etation Type - Big sagebrush - Grass - Juniper
 ce Constructed - June 1965
 atments - None
 nsects Established - 1965 - Inside, Outside
 eral Location - From the junction of Highway 120 and the Gooseberry Road, go northwest-
 ward for 4.0 miles. Turn left for 4.9 miles on the road to Dickey. Turn
 left for .2 mile, traveling directly toward Dickey on a dirt road, then
 turn right and go westward along Left Hand Creek for 4.8 miles to the
 enclosure.



nts Observed During 1965-1966

emisia tridentata	Potentilla gracilis
emisia frigida	Vicia americana
ierrezia sarothrae	Erigeron pumilus
tuca idahoensis	Penstemon spp.
spp.	Chrysothamnus viscidiflorus
secunda	Androsace occidentalis
opyron smithii	Calochortus nuttallii
opyron spp.	Tragopogon dubius
pa comata	Hymenoxys acaulis
leria cristata	Lepidium densiflorum
tex filifolia	Allium textile
opyron spicatum	Plantago patagonica
tex eleocharis	Astragalus missouriensis
ephanomeria tenuifolia	Arenaria hookeri
ochortus spp.	Astragalus purshii
ennaria rosea	Arabis spp.
taxacum officinale	Poa compressa
tropis spp.	
astium arvense	
inus spp.	
lox hoodii	

UPPER LEFT HAND CREEK EXCLOSURE

August 12, 1965

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group.	% Freq.
ARTR	12.15			50%	GUSA	.10			05%
GUSA	.25			05	ARTR	10.37			65
ARFR	1.50			40	ARFR	.85			35
Shrub Total	13.90				Shrub Total	11.32			
AGSP	.45	2.29	5.35	50	AGSM	1.08	6.30	15.10	65
AGSM	.15	.76	1.78	20	AGSP	.18	1.05	2.52	25
POSE	2.35	11.98	27.96	95	POSE	2.05	11.95	28.66	100.
KOCR	1.88	9.58	22.35	90	KOCR	1.40	8.16	19.58	90
CAEL	.42	2.14	4.99	55	STCO	1.62	9.45	22.66	70
STCO	1.42	7.23	16.88	80	CAL	.32	1.87	4.48	45
FEID	1.20	6.11	14.27	30	CAEL	.35	2.04	4.90	55
POCO	.22	1.12	2.62	20	POA	.15	.87	2.10	10
CAL	.32	1.63	3.80	40	Grass Total	7.15	41.69	100.00	
Grass Total	8.41	42.84							
OXY	.02	.10	.18	05	ALTE	.28	1.63	2.80	05
CEAR	1.40	7.13	12.48	35	CEAR	.50	2.92	5.00	20
LUP	1.18	6.01	10.52	40	LUP	.57	3.32	5.70	45
ANRO	6.90	35.17	61.51	40	ANRO	6.90	40.23	69.00	65
TAOF	.22	1.12	1.96	30	TAOF	.27	1.57	2.70	35
ERPU	.20	1.02	1.78	30	ERPU	.57	3.32	5.70	50
CHVI	.10	.51	.89	05	PHHO	.18	1.05	1.80	20
PHHO	.48	2.44	4.28	30	LEDE	.08	.47	.80	15
ANOC	.22	1.12	1.96	45	ANDC	.20	1.17	2.00	35
CANU	.02	.10	.18	05	PLPA	.08	.47	.80	15
TRDU	.05	.25	.44	10	ARA	.02	.12	.20	05
HYAC	.18	.92	1.60	10	ASMI	.05	.29	.50	10
STTE	.10	.51	.89	15	STTE	.10	.58	1.00	20
LEDE	.10	.51	.89	20	ARHO	.08	.47	.80	15
PEN	.05	.25	.44	05	ASPU	.10	.58	1.00	05
Forb Total	11.22	57.16	100.00		TRDU	.02	.12	.20	05
					Forb Total	10.00	58.31	100.00	
UNDERSTORY					UNDERSTORY				
TOTAL	19.63	100.00			TOTAL	17.15	100.00		

UPPER LEFT HAND CREEK EXCLOSURE

August 3, 1966

INSIDE

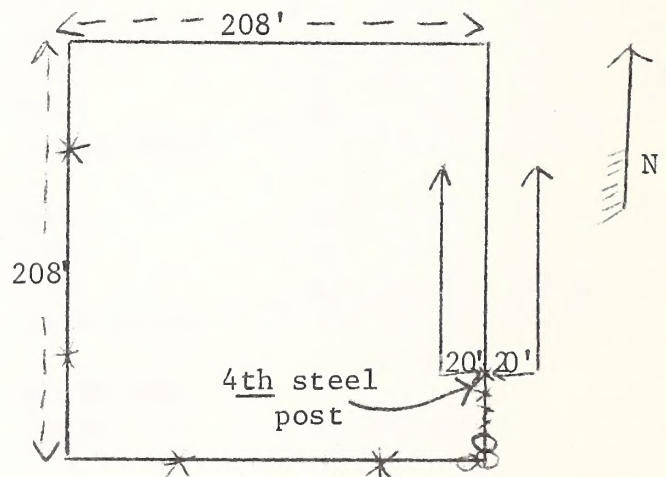
OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	6.00			55%	ARTR	13.70			60%
ARFR	.58			40	ARFR	.65			35
GUSA	.10			5	GUSA	.55			10
Shrub Total	6.68				Shrub Total	14.90			
FEID	.72	6.53	10.11	30	FEID	.10	.96	2.69	5
POA	3.36	30.50	47.20	65	STCO	.02	.19	.54	5
POSE	2.15	19.51	30.19	55	POA	.52	5.01	13.98	20
AGSM	.15	1.36	2.11	30	POSE	.80	7.71	21.50	75
AGR	.15	1.36	2.11	25	AGR	.40	3.86	10.75	75
STCO	.05	.45	.70	10	AGSM				
KOCR	.32	2.90	4.49	35	KOCR	1.03	9.94	27.69	85
CAFI	.22	2.00	3.09	35	CAFI	.85	8.20	22.85	70
Grass Total	7.12	64.61	100.00		Grass Total	3.72	35.87	100.00	
ANRO	2.31	20.97	59.24	35	OXY	.10	.96	1.50	5
TAOF	.10	.91	2.56	20	PHHO	.25	2.41	3.76	35
OXY	.02	.18	.51	5	CEAR	.35	3.38	5.26	30
CEAR	.40	3.63	10.26	45	ANRO	5.21	50.25	78.36	65
LUP	.28	2.54	7.18	25	ERPU	.50	4.82	7.52	50
PHHO	.28	2.54	7.18	20	TAOF	.12	1.16	1.80	25
POGR	.02	.18	.51	5	VIAM	.02	.19	.30	5
VIAM	.02	.18	.51	5	LUP	.10	.96	1.50	20
UNK #2	.05	.45	1.28	5	Forb Total	6.65	64.13	100.00	
ERPU	.40	3.63	10.26	35					
PEN	.02	.18	.51	5	UNDERSTORY				
Forb Total	3.90	35.39	100.00		TOTAL	10.37	100.00		
UNDERSTORY									
TOTAL	11.02	100.00							

WORLAND CATTLE COMPANY ENCLOSURE

Site Number - 2016
County - Washakie
Legal Description - R92W T45N NE NE Sec. 8
Elevation - 4400 ft.
Vegetation Type - Big Sagebrush - Cactus - Grass
Year Constructed - 1966
Treatments - None
Insects Established - 1966 - Inside, Outside
General Location - Go south out of Worland on Nowater Road for 2.9 miles, turn left at Kootis Stockyards and go east for .2 mile, turn right and go south for 1.4 miles and cross irrigation canal, continue southward for 2.8 miles and cross east fork Nowater River, continue southward for 2.3 miles to the enclosure which is about 50 yards NE of the road.

July 15, 1966 Note - Very sandy soil, sagebrush small and depauperate. Cactus and cheatgrass very abundant.



Plants Observed During 1966

Atriplex tridentata
A. secunda
Artemisia gracilis
Comus tectorum
Elymus octoflorus
Gutierrezia polyacantha
Populus texana

WORLAND CATTLE CO. EXCLOSURE

July 25, 1966

INSIDE

OUTSIDE

	Cover % Ave.	Comp. all Under.	Comp. by Group	% Freq.		Cover. % Ave.	Comp. all Under.	Comp. by Group	% Freq.
ARTR	<u>2.60</u>			10%	ARTR	<u>2.02</u>			10%
Shrub Total	2.60				Shrub Total	2.02			
BRTE	.92	14.42	27.22	85	BRTE	.75	18.12	27.57	100
POSE	.18	2.82	5.33	15	FEOC	.62	14.98	22.79	95
FEOC	.60	9.40	17.75	65	BOGR	1.05	25.35	38.61	45
BOGR	<u>1.68</u>	<u>26.34</u>	<u>49.70</u>	70	POSE	<u>.30</u>	<u>7.25</u>	<u>11.03</u>	20
Grass Total	3.38	52.98	100.00		Grass Total	2.72	65.70	100.00	
OPPO	2.46	38.55	82.00	25	PLPA	.22	5.31	15.49	45
PLPA	.32	5.02	10.67	60	LATE	.30	7.25	21.13	50
LATE	<u>.22</u>	<u>3.45</u>	<u>7.33</u>	45	OPPO	<u>.90</u>	<u>21.74</u>	<u>63.38</u>	15
Forb Total	3.00	47.02	100.00		Forb Total	1.42	34.30	100.00	
UNDERSTORY					UNDERSTORY				
TOTAL	6.38	100.00			TOTAL	4.14	100.00		

